



***CAL
FIRE***

Strategic Fire Plan Humboldt Del-Norte Unit 2013



CAL FIRE Copter 102 during an initial attack fire in the Humboldt Del Norte Unit

UNIT STRATEGIC FIRE PLAN AMENDMENTS

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Table of Contents

<i>Table of Contents</i>	3
<i>EXECUTIVE SUMMARY</i>	4
<i>SIGNATURE PAGE</i>	5
<i>SECTION I: UNIT OVERVIEW</i>	7
<i>UNIT DESCRIPTION</i>	7
<i>UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES</i>	11
<i>SECTION II: COLLABORATION</i>	14
<i>COMMUNITY / AGENCIES / FIRE SAFE COUNCILS</i>	14
<i>SECTION III: VALUES</i>	15
<i>A: VALUES</i>	15
<i>B: COMMUNITIES</i>	15
<i>SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES</i>	18
<i>A: FIRE PREVENTION</i>	18
<i>ENGINEERING & STRUCTURE IGNITABILITY</i>	18
<i>INFORMATION AND EDUCATION</i>	19
<i>B. VEGETATION MANAGEMENT</i>	21
<i>SECTION V: PRE- FIRE MANAGEMENT TACTICS</i>	22
<i>DIVISION / BATTALION / PROGRAM PLANS</i>	22
<i>APPENDIX A: PRE- FIRE PROJECTS</i>	37
<i>APPENDIX B: UNIT GOALS AND OBJECTIVES</i>	40
<i>APPENDIX C: COMMUNITY WILDFIRE PROTECTION PLANS:</i>	43
<i>APPENDIX D: ANNUAL FIRE SEASON REPORT</i>	47
<i>APPENDIX E: SRA / DPA TABLE</i>	49
<i>EXHIBITS: MAPS</i>	50
<i>SUPPLEMENT: 2013</i>	59

EXECUTIVE SUMMARY

The Humboldt Del Norte Unit Fire Plan is a living document. It is intended to be updated annually when the Unit progresses with State and Unit priorities. These goals are written in the 2012 Strategic Fire Plan for California.

The California Department of Forestry and Fire Protection (CALFIRE) Humboldt-Del Norte Unit (HUU) is located along the California coastline and includes Humboldt, Del Norte, and portions of Trinity counties. The Unit extends north to south approximately 180 miles and inland approximately 50 miles. This encompasses 1,928,267 acres of state responsibility lands and 1,927,410 of direct protection area. Approximately 70% of these lands are zoned for timber production and another 10% are recreation areas. Watersheds within the Unit include the Smith, Klamath, Mad, Trinity, Van Duzen, Mattole and Eel Rivers. Humboldt and Del Norte counties are home to not only the world's tallest living trees, but also the largest remaining stands of old growth coast redwood. Many of these stands are protected in parks and recreational areas. The livelihood of these counties is dependent on the resources the land itself has to offer both in the form of timber production and recreation.

A significant portion of HUU is held by federal cooperators. The Six Rivers, Rogue - Siskiyou, and Klamath National Forests, Redwood National Park, scattered Bureau of Land Management, combine with tribal trust areas for 1,300,000 acres of federal lands. The Bureau of Indian Affairs supports twelve tribal agencies, and the Hoopa tribe provides fire protection on its' reservation.

The HUU Strategic Fire Plan is developed by the Planning Battalion through a collaborative process that includes: CALFIRE field battalions, fire prevention, administration staff, county and local Fire Safe Councils, and cooperating agencies. The Unit Chief provides direction on how the Unit endeavors to meet the key goals of the Strategic Fire Plan for California. The field and administrative battalions provide localized and program plans towards meeting those objectives. Implementation is directed by the field battalion chiefs and camp chiefs for daily operations.

COLLABORATION

This plan is a compilation of efforts from various groups and agencies throughout the Unit to address the mitigation of the hazardous fuel loading within the Unit and around the communities at risk within it. The plan addresses the priorities put forth by the Unit based on the key issues gathered from cooperators: 1) assets at risk, 2) level of service, 3) fuels, 4) fire weather, and 5) fire history.

Unit Strategic Fire Plan developed for **Humboldt – Del Norte Unit:**

This Plan:

- Was collaboratively developed. Interested parties, Federal, State, City, and County agencies within the Unit have been consulted and are listed in the plan.
- Identifies and prioritizes pre fire and post fire management strategies and tactics meant to reduce the loss of values at risk within the Unit.
- Is intended for use as a planning and assessment tool only. It is the responsibility of those implementing the projects to ensure that all environmental compliance and permitting processes are met as necessary.

SIGNATURE PAGE

s/ Tom Hein_____

Unit Chief

Tom Hein

4-22-13_____

Date

s/Shawna Powell_____

Pre-Fire Engineer

Shawna Powell FC,

4-22-13_____

Date

President, Humboldt County Fire Chief's Association

Date

Chair, Humboldt County Board of Supervisors

Date

Chair, Del Norte County Board of Supervisors

Date

Chair, Trinity County Board of Supervisors

Date

PRIORITIZED FUEL REDUCTION

This plan identifies and prioritizes areas of hazardous fuel reduction treatments and recommends the type and methods of treatments that will be used by the Humboldt-Del Norte Unit to protect one or more of the Communities at Risk and their essential infrastructure within the Unit boundaries. This includes some efforts of local cooperators and their accomplishments.

TREATMENT OF STRUCTURAL IGNITABILITY

This plan recommends measures that homeowners and communities can take to reduce the ignitability of structures throughout the Unit. Information drawn from a variety of sources were included in this plan to help educate the public as to what they can do to help mitigate potential problems associated with living in the Wildland Urban Interface. (WUI)

SECTION I: UNIT OVERVIEW

UNIT DESCRIPTION

Location

The CAL FIRE Humboldt - Del Norte Unit is the most northern unit along the California coastline. The Unit extends north to south approximately 180 miles and inland approximately 50 miles. This encompasses 1,928,267 acres of state responsibility lands and 1,927,410 of direct protection area. The Unit includes Redwood National Park, United States Forest Service (USFS) Six Rivers National Forest and the Bureau of Land Management's Headwaters Forest and Kings Range, eleven State Parks, and 20 county parks and beaches. There are also twelve tribal agencies residing within the unit including the Hoopa, which provides wildland fire protection on their reservation. The Yurok, Wiyot, Karuk and Tolowa are some of the other tribes that have lands, for which CALFIRE provides wildland fire protection under contract with the Bureau of Indian Affairs.

Vegetation and Fuels

The Fire Plan analysis of fuels has been completed for the Humboldt Del Norte Unit. The Unit is predominately mixed conifer forest (NFDRS Fuel model G) or Fire Behavior Fuel Model 10. This vegetation type consists of coast redwood, Douglas-fir, spruce with intermingled hardwoods including madrone and tanoak. A key component within this fuel type is the large amount of down and dead woody fuel. This vegetation type occurs in three zones. The coastal strip consists of coast redwood, Douglas-fir and spruce. This is a closed canopy forest with a thick, lush understory of brush. The biomass in this fuel type is equal to or greater than a rainforest and often times is referred to as a rainforest. The second zone occurs inland where the Douglas-fir dominates and resides with hardwoods. This results in a more open canopy with a sparser understory. The

third zone occurs in the most southeastern portions of the unit, where the fuel is that of a typical Oak Woodland. The understory is open and consists of grass and brush (chaparral).

Sudden Oak Death (SOD)

The pathogen *Phytophthora ramorum* was first identified in Humboldt County in the late 1990s near Redway, and causes the condition commonly known as Sudden Oak Death (SOD). SOD causes 100% mortality in tanoak and has the potential to seriously impact fuel loading and fire behavior in affected stands. It has spread in southern Humboldt and is focused in the South Fork Eel River watershed north to Weott. Other sites are found near Eel Rock and in the Redwood Creek watershed north of Highway 299. CAL FIRE has worked with UC Cooperative Extension, private landowners, and State Parks to identify potential treatments for this pathogen. The areas of *P. ramorum* infection continue to spread. The SOD areas produce higher fuel loads and affected trees are prone to rapid failure during fires. No SOD has yet been found in either Trinity or Del Norte counties.

The following set of photographs depicts a cross section of the vegetation types within the Humboldt-Del Norte Unit.



Redwood Forest



Fire Hazard Severity Zones

As a component of the implementation of new WUI building code standards, CALFIRE undertook a major effort to reclassify the Fire Hazard Severity Zones (FHSZ) statewide for SRA and LRA lands. The new FHSZ areas are classified primarily as High and Very High FHSZs. Some areas of Moderate FHSZ are located near the coast. For LRA, the local entities have accepted CALFIRE's classification of those areas. There are no LRA zones in the Unit that are classified as Very High FHSZ. Federally owned and managed lands were not formally classified.

Topography and Weather

The Humboldt Del Norte Unit is a coastal region with varying topography, which is primarily mountainous. Elevations range from sea level to 4100 feet. Slopes range from moderate to very steep with 80-90% not being uncommon.

The Fire Plan analysis of the frequency of severe fire weather has been developed. The business plan that addresses the validation process was completed two years ago.

The HUU current weather station being used as a severity station for the Unit (Eel River RAWS) because of its location provides an accurate depiction of the area. In addition the unit has thirty years of historic data for this site. We have used this RAWS as our severity station for the past several years in our Unit Weather Plan.

The unit has used various options, such as the use of Fire Family Plus to tabulate existing weather data from our weather stations set in National Fire Danger Rating Zones, as addressed in the Unit Weather plan.

Using local knowledge and research work done at Humboldt State University we can define when and under what conditions severe fire weather occurs. The unit is also

fortunate to have a good database (dating back to 1974) of weather observations from the Eel River manual weather observation station.

Three major synoptic weather systems are associated with large fires in the Humboldt Del Norte Unit. They are the Pacific High (post-frontal), the Great Basin High and the Subtropical High Aloft pattern. These patterns can be expected to occur 50-55 days in the summer months, with the greatest number of days occurring in July, August or September.

The National Weather Service provides all daily fire weather forecasting for HUU from their Eureka office. All fire weather forecasts are available at the Eureka office main web page: <http://www.wrh.noaa.gov/Eureka>. We also provide an annual Unit Fire Weather Operating Plan that directs Unit fire business, fire danger thresholds, and weather related operating procedures.

Fire History

In order to fully understand the goal of the fire management plan, it is important to recognize the area's fire history. Fire has long been a part of Humboldt and Del Norte counties. During the pre-settlement period (before 1875) the Native American people commonly used fires as tools to manipulate their environment. They used fire for a variety of reasons. It helped drive out rodents and insects, kept the forest understory open, which made for easier travel and hunting. Additionally it enhanced the forbs and grasses used in basket weaving. During the settlement period (1875-1897) European settlers used fire for maintenance and enlarging the pasturelands and as a land clearing method. Major land activities during the post settlement period (1898-1940) were livestock grazing, farming, debarking of the tanoak for tannin production and logging of Douglas-fir and coast redwood. Logging was clearly a dominant activity during this time period. Hundreds of small mills existed up and down the coastline; often the mills would have their own railroad for the transportation of the logs as well. In this time of unrefined mechanized equipment, the logging operations were simplified as much as possible. Logged areas were burned to assist with the removal of the logs and reduce the logging debris left behind. These fires were left to burn with no real control efforts. The same can be said for the area ranchers who commonly set fire to their land in order to maintain the grazing.

Many studies have been conducted on the fire frequency of the Coast Redwood. The fire frequency varies greatly between the Northern and Southern portions of the unit. The studies reflected the Northern portion of the unit on a 50-100 year fire cycle. However the Southern portion of the unit is on a 12-50 year Fire cycle. Reviews of area newspapers and various studies at Humboldt State University indicate that there was a significant fire history from the late 1800's through early 1950's. Between 1880 and 1952 there was 24 "fire seasons". During this time period the fire interval was 3.3 years. Some of these fires included entire towns being burned, such as the 1908 fire that destroyed the community of Luffenholz. People were left homeless, local mills and railroad tracks all perished from these large severe fires. The Civilian Conservation Corps began work in the Humboldt – Del Norte area in the mid-1930s, developing an improved local firefighting infrastructure. After 1945, the severity and number of fires

began to decline significantly. The State Forest Practice Act changed the manner in which lands were managed, which led to the curtailing and changing of logging activities. Secondly, World War II had taken the work force overseas; with the return of the soldiers came an active fire suppression program.

Priority Landscapes

No data avail yet from the Landscape Priority Mapper. Currently the unit data for Priority Landscapes is maintained and updated on a web based GIS system collaboratively maintained by the local fire safe counsel groups, local fire agencies, county planning department and the unit. Below is the link:

<http://gis.co.humboldt.ca.us/Freeance/Client/PublicAccess1/index.html?appconfig=fp5>

Unit General Priorities

With local government and community collaboration, the unit's general goals will be to enhance the protection of lives, property and natural resources from wildland fire. This will also improve environmental resilience to wildland fire. Community protection includes promoting the safety of the public and emergency responders, as well as protection of property and other improvements.

UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

The Humboldt –Del Norte Unit is composed of eleven fire stations, three camps, one air attack base, and one helitack base. CDF HUU maintains 14 frontline engines, with two engines in reserve, two dozers, 15 inmate crews, one helicopter, one air attack, and one air tanker for fire suppression efforts. There are approximately 100 permanent fire suppression personnel, 12 resource management personnel, and 6 clerical personnel to staff these efforts. Additionally the Unit hires approximately 90 limited term and seasonal personnel to supplement permanent staff during the fire season.

All Unit aircraft provide rapid initial attack and are especially valuable in the county's remote areas where steep terrain and narrow, winding roads greatly increase ground response times. In such situations, aircraft are often at scene and applying water or retardant before engines and dozers arrive, cooling the fire and giving ground resources the ability to achieve initial attack success. Aircraft also provide "eyes in the sky" for those on the ground, noting spot fires and giving other direction from their vantage point.

The Fortuna Inter-Agency Command Center is staffed 24 hours 7 days a week. This is an Interagency Command Center CAL FIRE is co-located with Six Rivers National Forest Dispatch. They take 911 calls for the Humboldt – Del Norte Unit, as well as for

34 volunteer fire departments, Arcata Fire Department, Redwood National Park, and Bureau of Land Management's Kings Range National Conservation Area. On the CAL FIRE side of the center they dispatch all vegetation fires, structure fires, medical, and traffic accidents in Humboldt County, with the exception of the City of Eureka and Fortuna. In Del Norte County the Command Center dispatches for SRA fires.

HUU has the potential for large catastrophic fires; especially in its' southern and eastern regions. With the area becoming more and more popular as an area of scenic beauty, relative low land cost, etc., the risk will continue to grow, especially for those who reside in remote areas of the Unit. The Unit has most of its fire protection adjacent to its population centers, leaving large areas of the Unit with long response times. Cal Fire's 2010 Strategic Fire Plan vision is to strive for:

"A natural environment that is more resilient and man-made assets which are more resistant to the occurrence and effects of wildland fire through local, state, federal and private partnerships"

Board of Forestry and Fire Protection designates in the California Fire Plan that CAL FIRE will strive to contain 95% of all unwanted fire at 10 acres or less. This is consistent with CAL FIRE's Fire Protection Objective as stated in the Fire Operations Handbook, policy 7001.2.

Humboldt County has an extraordinarily strong and effective mutual aid system. Humboldt County has 38 Volunteer and paid departments that respond to emergencies 365 days a year. During fire season CAL FIRE responds with the Local fire departments to vegetation fires, structure fires, medical aids, traffic accidents, and other all-risk emergencies. All of these agencies are quick to assist each other in the Mutual Aid Zones, as well as beyond those areas. On wildfires, CAL FIRE and local firefighters, paid and volunteer, work side by side as a team, all in yellow Nomex fire resistant clothing and barely distinguishable from each other in appearance and skill. In addition the local fire departments and CAL FIRE work frequently with the local ambulance services, US COAST GUARD and CALSTAR/REACH on calls requiring ground or air medical transport.

A list of Humboldt County's local fire agencies follows. Insurance Service Office (ISO) ratings are assigned to localities by the insurance industry according to their fire suppression capabilities, available water supply, and other factors, with a rating of 1 indicating the best possible situation. Homeowners' fire insurance costs are calculated in part according to these ratings.

Local Fire Agencies in HUU
Local Fire Organizations Providing Service in the Humboldt-Del Norte Unit
Humboldt County Agencies

City Fire Dept.

Humboldt Bay Fire and Trinidad

Fire Protection Dist.

Arcata	Blue Lake	Ferndale	Fortuna
Garberville	Kneeland	Loleta	Myers Flat
Petrolia	Redwa	Rio Dell	Samoa
Peninsula	Scotia	Shelter Cove	
Telegraph Ridge		Whitethorn	Willow Creek

Volunteer Fire Dept.

Bridgeville	Briceland	Fruitland Ridge	Honeydew
Orleans	Palo Verde	Prosper Ridge	Redcrest
Salmon Creek	Sprowl Creek	Westhaven	Whale Gulch

Community Services Dist.

Carlotta	Fieldbrook	Miranda	Phillipsville
Orick	Ruth lake	Scotia	Weott

Other Special Dist. or Agencies.

County Service Area #4, Hoopa & Yurok Fire Dept., Shelter Cove Resort Improvement Dist

Del Norte County Agencies

City Fire Dept.

Crescent City

Fire Protection Dist.

Crescent Fork Dick Smith River

Volunteer Fire Dept.

Gasquet Klamath

Trinity County Agencies

Volunteer Fire Dept.

Kettenpom Salyer (CSD) Burnt Ranch Hawkins Bar S. Trinity

SECTION II: COLLABORATION

COMMUNITY / AGENCIES / FIRE SAFE COUNCILS

Organizations involved in the development of the Unit Strategic Fire Plan are included in the following table. Their organization and title are indicated below: The demographics of the area lend itself to many stakeholder groups with a wide array of needs.

Plan Development Team:

Organization	Representative
Humboldt County FSC	(Specialist Planner)
Del Norte County FSC	(President)
Trinity County FSC	(President)
Southern Humboldt FSC	(President)
Fruitland Ridge FSC	(President)
Lower Mattole FSC	(President)
Orleans / Somes Bar FSC	(President)
Van Duzen Watershed FSC	(Director)
Willow Creek FSC	(President)
Humboldt Redwood State Parks	(Park Ecologist)
Six Rivers National Forest	(Fire Prevention Officer)
UC Cooperative Extension	(County Director Forest advisor)
Humboldt County Planning	(GIS Specialist)
Six Rivers National Forest	(Fire Planner GIS Specialist)
Green Diamond Resources	(Timberland Manager)
Bureau of Land Management	(Fuels Officer)
Mattole Restoration Council	(Manager)
Bridgeville Community Center	(Executive Administrator)
Six Rivers USFS Mad River District	(Fuels Planner)
Karuk Tribe Dept of Natural Resources	(Eco-Cultural Restoration Specialist)
Smith River National Recreational Area	(Fuels Planner)
Southern Humboldt Fire Chiefs Assoc.	(President)
Northern Humboldt Fire Chiefs Assoc.	(President)

SECTION III: VALUES

A: VALUES

Population dynamics in California has resulted in rapid development in the outlying fringe of metropolitan areas and in rural areas with attractive recreational and aesthetic amenities, especially forests. This demographic change is increasing the size of the wildland-urban interface (WUI), defined as the area where structures and other human development meet or intermingle with undeveloped wildland. The WUI is where wildfire could pose the biggest risk to human lives and structures. The expansion of the WUI in recent decades has significant implications for wildfire management and impact. The WUI creates an environment in which fire can move readily between structures and vegetation fuels

WUI is composed of both intermix and interface communities. Intermix communities are places where housing and vegetation intermingle. In intermix, wildland vegetation is continuous, more than 50 percent vegetation, in areas with more than 1 house per 40 acres. Interface communities are areas with housing in the vicinity of contiguous vegetation. Interface areas have more than 1 house per 40 acres, have less than 50 percent vegetation, and are within 1.5 miles of an area that is more than 75 percent vegetated.

The California Fire Alliance (2001) defined “vicinity” as all areas within 1.5 miles of wildland vegetation, roughly the distance that firebrands can be carried from a wildland fire to the roof of a house. It captures the idea that even those homes not sited within the forest are at risk of being burned in wildland fire.

With the use of the above definitions as a foundation, the communities in and around these WUI areas become “Communities at Risk”. The following section provides a list of the Communities at Risk within the boundaries of the Humboldt-Del Norte Unit.

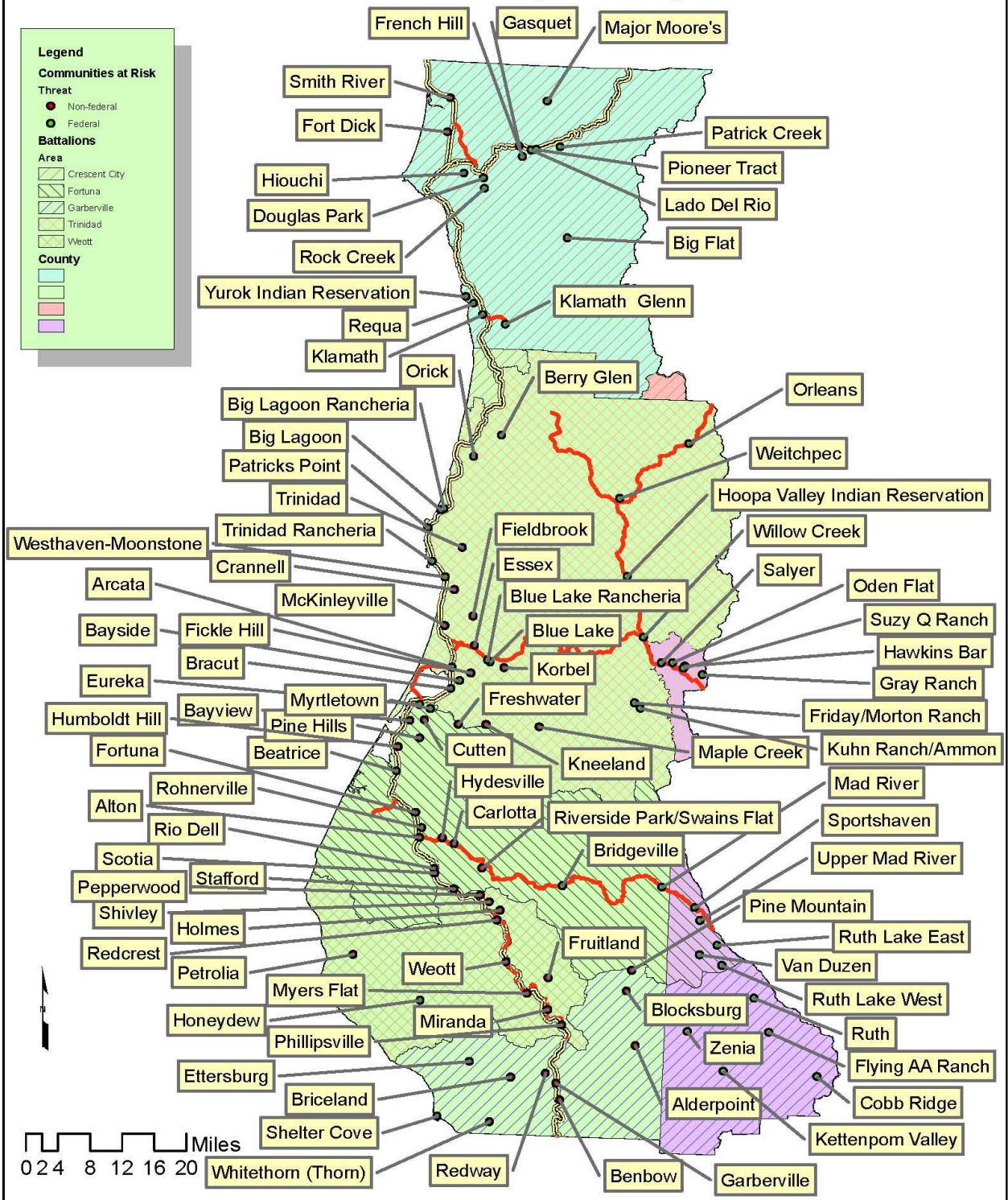
B: COMMUNITIES

The Humboldt – Del Norte Unit has many communities that are at risk from wildfire. The federal register includes most, but not all the potentially threatened areas. These communities are as noted on the following table:

Community	Federal Register	Threat			
			Berry Glen	Yes	Federal
Alderpoint	No		Big Flat	Yes	Federal
Alton	No		Big Lagoon	Yes	Federal
Arcata	No	Federal	Big Lagoon Rancheria	Yes	Federal
Bayside	No	Federal	Blocksburg	No	
Bayview	No		Blue Lake	Yes	Federal
Beatrice	No	Federal	Blue Lake Rancheria	Yes	Federal
Benbow	No				

Bracut	No	Federal	Pepperwood	No	
Briceland	No		Petrolia	Yes	
Bridgeville	Yes	Federal	Phillipsville	No	
Carlotta	No		Pine Hills	Yes	
Cobb Ridge	Yes	Federal	Pine Mountain	No	
Crannell	No		Pioneer Tract	Yes	Federal
Cutten	No		Redcrest	No	
Douglas Park	Yes	Federal	Redway	No	
Essex	No		Requa	No	Federal
Ettersburg	Yes	Federal	Rio Dell	No	
Eureka	No	Federal	Riverside	No	
Fickle Hill	Yes		Park/Swains		
Fieldbrook	No		Flat		
Flying AA	Yes	Federal	Rock Creek	Yes	Federal
Ranch			Rohnerville	No	Federal
Fort Dick	No		Ruth	Yes	Federal
Fortuna	No		Ruth Lake East	Yes	Federal
French Hill	Yes	Federal	Ruth Lake West	Yes	Federal
Freshwater	No		Salyer	Yes	Federal
Friday/Morton	No	Federal	Scotia	No	
Ranch			Shelter Cove	Yes	Federal
Fruitland	No		Shivley	No	
Garberville	No		Smith River	No	
Gasquet	Yes	Federal	Sportshaven	Yes	Federal
Gray Ranch	Yes	Federal	Stafford	No	
Hawkins Bar	Yes	Federal	Suzy Q Ranch	Yes	Federal
Hiouchi	Yes	Federal	Trinidad	Yes	
Holmes	No		Trinidad	Yes	Federal
Honeydew	Yes	Federal	Rancheria		
Hoopa Valley	Yes	Federal	Upper Mad	Yes	Federal
Indian			River		
Reservation			Van Duzen	Yes	Federal
Humboldt Hill	No		Weitchpec	Yes	Federal
Hydesville	No		Weott	No	
Kettenpom	Yes	Federal	Westhaven-	Yes	Federal
Valley			Moonstone		
Klamath	Yes	Federal	Whitethorn	Yes	
Klamath Glenn	No	Federal	(Thorn)		
Kneeland	No		Willow Creek	Yes	Federal
Korbel	Yes		Yurok Indian	No	Federal
Kuhn	Yes	Federal	Reservation		
Ranch/Ammon			Zenia	Yes	Federal
Lado Del Rio	Yes	Federal			
Mad River	Yes	Federal			
Major Moore's	Yes	Federal			
Maple Creek	No				
McKinleyville	No				
Miranda	No				
Myers Flat	No				
Myrtle town	No	Federal			
Oden Flat	Yes	Federal			
Orick	Yes	Federal			
Orleans	Yes	Federal			
Patrick Creek	Yes	Federal			
Patricks Point	No	Federal			

2012 Communities at Risk by County and Battalion



SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES

A: FIRE PREVENTION

Unit prevention efforts include fair exhibits, community fire safe day exhibitions, burn and 4290 permit procedures, fire patrols, news media releases, public service announcements, structure and dooryard premise inspections, and an active board member on the Humboldt County Fire Safe Council. The Units goals are to reduce ignitions/fires through Education, Information, Planning, and Enforcement. By increasing awareness, knowledge and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires, such as defensible space and other fuels reduction projects, Fire Prevention and fire sage building standards. Fire prevention programs are coordinated to the greatest extent possible with fire safe councils and local fire departments. While implementing these goals the Units objective is to see the ignitions of fires reduced in the Unit.

ENGINEERING & STRUCTURE IGNITABILITY

This plan recommends measures that homeowners and communities can take to reduce the ignitability of structures throughout the Unit. Information drawn from a variety of sources were included in this plan to help educate the public as to what they can do to help mitigate potential problems associated with living in the Wildland Urban Interface. (WUI)

The Humboldt-Del Norte Unit contains many communities that are threatened with potential loss of life and property due to wildfires. These and many other communities in California are subject to threats from wildfire, yet thousands of homes continue to be constructed every year that are not safe for fire prone areas.

Following several destructive wildfires that have occurred in California, various statues and regulations have been enacted to combat the ever-increasing threats to lives and property due to wildfire. Laws have been enacted to govern fire safety in regards to vegetation management, land use and more. Fire Safe Building standards were enacted, effective Jan. 1, 2009. These standards apply in all State Responsibility Areas in the Unit. They require fire resistive roofing, windows, and siding. Eaves and soffits must be enclosed and the external vents must be engineered to limit the intrusion of embers. Additional standards requiring residential sprinklers on all new construction became effective on Jan. 1, 2011.

These measures are intended to reduce the spread of fire to and from structures, helping to save lives, minimize property loss, and protect the environment.

Other measures have been in effect for many years. Public Resources Code (PRC) 4290 (and its' equivalent local ordinances) provide standards for roads, emergency water supply, vegetation treatment setbacks, and addressing signage. In Humboldt County, these standards are embodied in the county's Fire Safe Ordinance 1951. PRC

4291 provides standards for vegetative clearance – requiring a 30-foot lean and 100-foot green zone. The Unit also maintains Roadside Public education signs and Fire danger rating Signs throughout the Unit. CALFIRE provides numerous brochures and guides on minimum defensible space standards.

INFORMATION AND EDUCATION

CAL FIRE's HUU Fire Safety Education Programs come in the form of school programs, fair exhibits, roadside public fire information signs, posters, flyers, Smokey bear fire danger roadside signs, and thousands of other printed materials, radio and television spots, community meetings, one-on-one contacts with wildland homeowners under the LE 100 inspections, and in recent years, the internet. This information and education is provided to people of all ages.

Smokey Bear, Sparky the Fire Dog, and Pluggie the fire hydrant are utilized at numerous events throughout the County with the goals of teaching fire safety at home and in the forest. Smokey, Sparky, and Pluggie are used in both the classroom setting and at public events, such as the Humboldt County Fair. While Smokey and Sparky are used primarily for teaching young individuals, the HUU prevention staff also provided other informational and educational, materials to teachers and Fire safe councils geared specifically to educators.

Public Resources Code 4290 & 4291

Fire Fighter personnel, working under the direction of the Fire Prevention Bureau, conduct compliance monitoring inspections of defensible space clearance requirements around buildings & structures on SRA lands. Concurrent with Fire Prevention inspections, Forest Practice personnel also conduct compliance inspections of projects which are exempt from Timber Harvesting Plan preparation, if applicable. Examples of such projects include fire hazard exemptions and/or less than three-acre timberland conversions which involve fuel treatment. Cal Fire also reviews and comments on fire safe standard application for discretionary projects in county planning.

Volunteers in Prevention (VIP)

The objective of the VIP Program is to involve and utilize citizens along with public service groups in non-salaried positions to reduce human-caused fires. VIPs educate thousands of children and their parents about fire prevention by participating in fairs, displays, and parades each year. Volunteers are trained to make preliminary wildland homeowner property inspections for fire safety as required by Public Resources Code 4291, and to discuss with homeowners ways to make their homes fire safe. These one-on-one contacts are an increasingly important education tool as the population in California's wildlands continues to grow. VIPs are trained to assist CAL FIRE's efforts during wildland fires and other emergencies by providing information to the media and public.

HUU Pre-Plans

- **Lightning Complex Area (LCA)**

INTRODUCTION

Fortuna Emergency Command Center referred to as the ECC within this document identifies the CAL FIRE multi-agency dispatch and command center located in Fortuna, California. The impact upon this communication center with multiple simultaneous incidents is critical. This plan was developed to handle the multiple incidents that can occur within a very short time frame, for example: there have been as many as 75 lightning caused fires occur in one day on within HUU's jurisdictional boundaries. HUU has also experienced several major fires burning simultaneously. This plan has been developed to manage our resources in a safe efficient manner when the Central Dispatch System cannot handle the complexity of the situation.

PLAN DEVELOPMENT

This plan is developed to standardize the procedures used by HUU during a Multiple Incident occurrence.

The plan is designed to handle multiple incidents as a result of lightning or other large scale events. It does not include fire operational procedures, for example: a lightning fire that develops beyond initial attack will be removed from the lightning plan procedures and treated as a separate incident (assuming that sufficient resources and personnel are available to manage the fire properly).

ACTIVATION OF THE PLAN

Activation may occur when one or more of the following conditions exist, keeping in mind there could be outside influences or local conditions that will call for plan activation. The ECC will notify all field units by a radio broadcast of activation of Multiple Incident Plan when:

1. Widespread incidents i.e. lightning, earthquake, flood, terrorism, tsunami, etc.
2. Significant lightning forecasted for HUU Direct Protection Areas (DPA).
3. Down strikes occur on HUU DPA.

Additionally, each Unit Battalion maintains a LCA kit. Each kit includes but is not limited to a copy of the LCA Plan, Maps and other items important to the successful implementation of the plan. Other battalion specific Pre Plans are maintained at the battalion level for first in response.

- **Mutual Threat Zones**

CAL FIRE has three Mutual Threat Zone areas identified in the Unit. Two are along the LRA/SRA boundaries with the City of Trinidad, and the City of Arcata. The memoranda-of-understanding on these two areas allows for automatic response by either the local entity or CAL FIRE to an incident within 1.0 miles of the LRA/SRA boundary. Costs for those responses may be billed to the responsible agency on a mutual aid basis. These MOUs have greatly reduced the cost to these local agencies, which formerly had Local Wildland Agreements with CAL FIRE. These Mutual Threat Zone MOUs are reviewed annually by the participants. The third zone is along the Oregon / California border.

B. VEGETATION MANAGEMENT

The Vegetation Management Program (VMP) is a cost-sharing program utilizing prescribed fire, and mechanical means, for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. The use of prescribed fire mimics natural processes, restores fire to its historic role in wildland ecosystems, and provides significant fire hazard reduction benefits that enhance public and firefighter safety.

VMP allows private landowners to enter into a contract with CAL FIRE to use prescribed fire to accomplish a combination of fire protection and resource management goals. The projects which fit within HUU's priority areas (e.g., those identified through the Fire Plan) and are considered to be of most value to the unit are those that will be completed.

CAL FIRE administers several state and federal forestry assistance programs with the goal of reducing wildland fuel loads and improving the health and productivity of private forest lands. California's Forest Improvement Program (CFIP) and other federal programs that CAL FIRE administers, offer cost-share opportunities to assist individual landowners with land management planning, conservation practices to enhance wildlife habitat, and practices to enhance the productivity of the land. The Department also delivers the Forest Stewardship Program which combines funds from state and federal sources to assist communities with multiple-ownership watershed and community issues related to pre-fire fuels treatment, forest health, erosion control, and fisheries issues.

C. PRE FIRE PLANNING

Environmental Review

The California Environmental Quality Act (CEQA) requires public agencies to consider actions on projects that may directly or indirectly result in a physical change in the environment. CAL FIRE provides resource management and fire safe comments on proposed discretionary projects routed through the county/city planning process and from the State Clearinghouse. Where projects cannot meet fire safe standards, CAL FIRE provides expert analysis on proposed project alternatives. For discretionary

projects where CAL FIRE funds, approves, permits, facilitates or carries out a project as lead agency, it is obligated to ensure that the appropriate steps are taken in complying with CEQA by preparing an environmental review. The Planning Battalion manages the Unit's environmental review program.

Fire Safe Council / Firewise Support

The Planning Battalion provides staff support for local and county-wide Fire Safe Councils within the Unit. They attend meetings, develop materials, and fill an expert role on fire safe practices. The Unit has provided chipper support and other in-kind match value to local councils seeking grant funding. CAL FIRE, in the role of the State Forester, reviews and is a signatory to local Community Wildfire Protection Plans.

Fuels Treatment and Grant Management

Fuels treatment projects conducted by CAL FIRE staff are monitored by the Planning Battalion. The three conservation camps manage their own projects and sponsors. However, projects involving Sudden Oak Death and grants to CAL FIRE are administered by the Planning Battalion to ensure consistent reporting. CAL FIRE also reviews grant applications for local fire departments, fire safe councils, and Firewise communities.

Geographic Information Systems Support / Mapping

Map development using GIS is provided by the Planning Battalion. This includes incident support, response maps, jurisdictional information, demographic analysis, and numerous other mapping products can be provided. Unit level CAL FIRE digital data sets are developed and maintained in the pre-fire shop.

SECTION V: PRE- FIRE MANAGEMENT TACTICS

DIVISION / BATTALION / PROGRAM PLANS



CAL FIRE's Humboldt-Del Norte Unit is divided into five field battalions; prevention, planning, aviation, emergency command center, and training administrative battalions. Each field battalion works closely with the planning battalion to assure fuel reduction projects and other projects within the battalion are coordinated. Each field battalion is involved in VMP projects and decisions that are located within their areas. Field battalions may also participate in local fire safe council activities and CWPP development in conjunction with the pre-fire planning battalion.

DIVISION / BATTALION / PROGRAM PLANS

HUU Battalion 1

Battalion Overview:

Humboldt Del Norte Unit Battalion 1 is located in the Southern end of the Humboldt Del Norte Unit. The Battalion is comprised of state, federal and local firefighting resources. Battalion 1 borders the USFS Six Rivers National Forest to the East and North, the Mendicino National Forest to the southeast, the CAL FIRE Mendicino Unit to the south and the CAL FIRE Shasta Trinity Unit to the east. Within Battalion 1's Direct Protection Area (DPA), there is a mixture of private property, National Forest, BLM, and State land.

Battalion Resources:

Fire Protection within the Battalion is largely made up of volunteer Fire Departments and seasonal staffing within Cal Fire, as well as Eel River Camp. The volunteer Fire Departments include Telegraph Ridge Fire Protection District, Shelter Cove Fire, Whitethorn Fire Protection District, Garberville Fire Protection District, Redway Fire Protection District the newly formed Briceland Fire Protection District, Alder Point Volunteers, Whale Gulch Volunteers, Palo Verdes Volunteers and Southern Humboldt Technical Rescue.

CAL FIRE

There are three seasonal Schedule B Stations in Battalion 1. Garberville Station houses two type III schedule B engines and a Battalion Chief. Whitethorn Station houses one type III schedule B engine. Alderpoint Station houses one type III schedule B engine. Battalion 1 also has Eel River Conservation Camp located within the Battalion.

Districts and Municipality

There are three Fire Protection Districts within the Battalion; they are the communities of Garberville, Redway and Shelter Cove and Briceland. Garberville, Redway and Briceland and Shelter Cove Fire Districts have portions of their districts that are SRA.

Wildland and Urban Interface:

Battalion 1 is largely comprised of private timberland with Barnum Timber being the largest industrial land holder. There are several small communities with mostly residential structures spread out in the SRA. The town of Garberville is the largest town in the Battalion with several commercial properties as well as a few hundred residential structures all in the urban interface.

Fuels-Weather-Topography:

Most of Battalion 1 is comprised of Coast redwood and Douglas-fir and mixed brush. The east side of the battalion is more of a Douglas-fir oak woodland fuel type, depending on the exposure.

Under normal summer high pressure, the fire activity will diminish after dark. The normal wind pattern is a northeast to southwest offshore dry wind pattern, and there are many occasions we will get a significant up river wind in the afternoon in the South Fork and Main Stem Eel River canyons and sundowner winds down the west slope of Kings Range in the western portion of the battalion. Battalion 1 is located in the Coast mountain range. The majority of the Battalion has been shaped over millions of years by marine uplift and seismic activity. The Battalion lies between the Pacific Ocean to the west and the main stem of the Eel River to the east. The Eel and Mattole River drainages run through the east and west of the Battalion with very steep and narrow canyons.

The southern area has varying characteristics of a conifer forest. Along Hwy 101 (and some distance to either side) to the county line, is a very typical redwood forest. The western edge of this area has more open conifer stands with intermingled hardwoods and a grass/brush under story. This is very true of the Mattole Valley area.

The southern interior area of Battalion 1 is more typical of the Sierra front country fuel type. It features more open stands of fir as well as areas of a typical oak woodland community. The under story is grass and brush (ceanothus). This area escapes the fog belt and is much warmer and drier.

Battalion Fire History:

Battalion 1 has a significant fire history of both lightning and human-caused fires. The majority of the fires burn from the southwest under a normal summer time high pressure in the afternoon. In recent times there have been several major fires that have threatened the community of Petrolia and Honeydew including; the Honeydew Fire 11,764 acres. The Battalion has also experienced lightning sieges that have included multiple major fires in Kings Range and Mattole River Valley.

Fuels Reduction / Battalion Projects and Priorities:

There are two active fire safe councils within Battalion 1. The Humboldt County Fire safe Council and the Southern Humboldt Safe Council covers the Eel River and the southern part of Humboldt County through the communities of Whitethorn, Briceland, Garberville and Shelter Cove. The Humboldt County Fire Safe Council covers both Mattole and Eel River drainages.

Battalion 1 personnel have been completing LE-100 inspections in most areas of the battalion. The Southern Humboldt Fire Safe Council has successfully completed several shaded fuel breaks in and around the community of Shelter Cove and the Kings Range. Fuel reduction projects are a priority within the Battalion and Eel River Conservation Camp as well as Unit sponsored Chippers are used in accomplishing these fuel reduction programs and efforts. Battalion 1 has a proven Lightning Complex Area (LCA) Lightning Plan, and is updated regularly due to lightning potential, with an established Incident Command Post held at the Battalion Headquarters in Garberville. Other emergency pre-plans, consisting of roads, addresses, and assets at risk within Battalion 1, have been established, and are monitored for changes annually. Public education programs and roadside signs are maintained for public education and notification. The battalion prioritizes all fuel reduction projects within the Battalion that decrease impacts from wildfire. Project prioritization occurs and is adapted premised on life, property and the environment. The Eel River Raws and Alderpoint Weather Stations are also located within Battalion 1

Battalion 2

Battalion Overview:

Battalion 2 is located in the Southern Division of the Humboldt / Del Norte Unit. The Battalion is comprised of a two engine station in Weott (Weott Station), a one engine station in Honeydew (Mattole Station) and Grasshopper Lookout. High Rock Conservation Camp is located within the battalion. Current peak staffing includes 1 Battalion Chief, 4 Fire Captains, 3 Fire Apparatus Engineers and 14 Firefighter I's.

Geographical Aspects:

The Weott Battalion encompasses approximately 300,000 acres of primarily timber with some grass and brush component as well. Land use includes timber production, Recreation and Ranching.

Battalion Fire History:

Battalion 2 has had a history of several large fires that have been both natural and human caused. Lightning caused fires can be difficult to access in some of the remote areas of the battalion. Naturally caused fires include the 2003 Honeydew and Canoe fires that burned an estimated 11,861 acres and 10,253 acres respectively. Human caused fires include two recent fires that started in the Spanish Flat area of the King's Range at about 150 acres each, the Colony Fire in the Eel Rock area at about 150 acres and the Buckeye Fire in the Petrolia area at about 200 acres.

Fuels, Weather and Topography:

Steep, rugged terrain describes much of Battalion 2, which includes the most remote and undeveloped portion of the California Coast. Fuels include High Value Redwood, Douglas Fir, grass and mixed brush. Hardwoods including Madrone and Tan Oak can be found on drier upper slopes and ridges. Timber slash can be found in active and once active harvest areas. Grazing land can be found in the Petrolia area and much of the Mattole Valley. There is an encroachment of Douglas Fir on some prairies. California State Parks has monitored the encroachment within Humboldt Redwoods State Park and has implemented an ongoing plan to reclaim the prairies through controlled burn operations. Heavy deposits of driftwood can be found at times along the coastline of the battalion. Major water features in the battalion include the Eel and Mattole Rivers. Marine air influence can produce strong and shifting winds.

Fuels Reduction/ Battalion Projects and Priorities:

- LE 100 inspections with Engine Company personnel
- K-3rd Team Teaching at local area schools
- Campfire programs at Humboldt Redwoods State Park and Camp Grant
- Attend local Fire Safe Council Meetings
- Community outreach "Ready, Set, Go" Plan
- Meet with Cooperators to preplan Wildfire and other emergencies.
- Engine Company presence at local events (Avenue of the Giants Marathon etc.)
- Meet and maintain communications with Humboldt Redwoods Company representatives.
- Assist California State Parks with planned prescribed burns in Humboldt Redwoods State Park.
- Work with VMP Coordinator to assist with current fuel reduction project on Bull Creek Road and to identify new fuel reduction projects.

Cooperating Agencies:

U.S. Forest Service
Bureau of Land Management
California Highway Patrol
California State Parks
Cal Trans
California Department of Corrections and Rehabilitation
Humboldt County Sheriff's Office
Myers Flat FPD
Petrolia FPD
Weott CSD
Miranda CSD
Phillipsville CSD
Fruitland Ridge VFD
Honeydew VFD
Redcrest VFD
Salmon Creek VFD
Humboldt Redwoods Company

Fire Safe Councils:

Humboldt County Fire Safe Council
Fruitland Ridge Fire Safe Council
Lower Mattole Fire Safe Council

Supervisor Districts:

Battalion 2 is encompassed by Humboldt County Supervisor District 1 (Rex Bohn) and District 2 (Estelle Fennell)

HUU Battalion 3

Battalion Overview:

Humboldt Del Norte Unit Battalion 3 is located in the Central portion of the Humboldt Del Norte Unit. The Battalion is comprised of state, federal and local firefighting resources. Battalion 3 borders the USFS Six Rivers National Forest to the East and the CAL FIRE Shasta Trinity Unit to the east. Within Battalion 3's Direct Protection Area (DPA), there is a mixture of private property, National Forest, BLM, and State land. The BLM Headwaters Reserve is also located within the battalion and is one of the largest old growth redwood preserve in the unit outside of the state park and national park lands.

Battalion Resources:

Fire Protection within the Battalion is largely made up of paid local government and volunteer Fire Departments and seasonal staffing within Cal Fire. The paid fire

departments include Humboldt Bay Fire, and Fortuna Fire with a paid Chief. The volunteer departments include Rio Dell Fire Protection District, Fortuna Fire Protection District, Ferndale Fire Protection District, Loleta Fire Protection Districts, Carlotta Fire, Kneeland and the newly formed Bridgeville Fire Protection District. The Humboldt Redwood and Green Diamond industrial timberland companies also have resources available to assist Cal Fire in Fire suppression activity.

CAL FIRE

There are two seasonal Schedule B Stations in Battalion 3. Fortuna Station houses one type III schedule B engine, one type III USF Engine and a Battalion Chief. Bridgeville Station houses one type III schedule B engine. The Rohnerville airbase is also located within the Battalion.

Districts and Municipality

There are eight Fire Protection Districts within the Battalion; they are the communities of Rio Dell, Fortuna, Ferndale, Loleta and Humboldt Bay, portion of Kneeland and the newly formed Bridgeville Fire Protection district. Carlotta Community Services district provide funding for Carlotta fire protection. Each of these Fire Districts has portions of their districts that are SRA.

Wildland and Urban Interface:

Battalion 3 is largely comprised of private timberland with Humboldt Redwood Company and Green Diamond Timber being largest industrial land holders. There are several municipalities and small communities with mostly residential structures spread out in the SRA. Eureka is the largest municipality town in the Battalion with several commercial properties as well residential structures some of which all located in the urban interface. Other small communities located within the Battalion have many residential structures located mostly in the urban interface.

Fuels-Weather-Topography:

Most of Battalion 3 is comprised of coast redwood and Douglas-fir and mixed brush and agricultural land. The east side of the battalion is more of a Douglas- fir oak woodland fuel type, depending on the exposure. Under normal summer high pressure, the fire activity will diminish after dark. The normal wind pattern is a west to southwest push during the afternoon, and there are many occasions we will get a significant up river wind in afternoon up in the Eel River canyon and Van Duzen River portion of the battalion. Battalion 3 is located in the Coast mountain range. The majority of the Battalion has been shaped over millions of years by marine uplift and seismic activity. The Battalion lies between Pacific Ocean to the west and the coast mountain range to the east. The Van Duzen and Elk River drainages run through the central and northern portion of the Battalion and the Mad River runs along the eastern edge of the Battalion with very steep and narrow canyons.

The interior area of the Battalion is more typical of the Sierra front country fuel type. It features more open stands of fir as well as areas of a typical oak woodland community. The understory is grass and brush (ceanothus). This area escapes the fog belt and is much warmer and drier.

The coastal strip area of the Battalion is a true redwood forest with the biomass equal to or greater than a rainforest. This area sees a significant amount of rainfall in addition to being in a fog belt for a good portion of the summer months.

Battalion Fire History:

Battalion 1 has a significant fire history of both lightning and human-caused fires. The majority of the fires burn from the southwest under a normal summer time high pressure in the afternoon. Major fires that have threatened the community of Blocksburg and Mad River including the Charles Fire (1188 Acres) and many Six Rivers National Forest Fires. The Battalion has also experienced lightning sieges that have included multiple major fires in Mad River Drainage.

Fuels Reduction / Battalion Projects and Priorities:

There are two active fire safe councils within Battalion 3. The Humboldt County Fire safe Council and the Van Duzen River Fire Safe Council covers the central part of Humboldt County through the communities of Carlotta, Bridgeville and, Blocksburg . The Humboldt County Fire Safe Council covers both the Lower Eel River and Elk River Drainages. Recently, Bridgeville was awarded and designated as a Firewise community. The Van Duzen Fire Safe Council has also been successful in the capturing fuel reduction grant opportunities.

Battalion 3 personnel have been completing LE-100 inspections in most areas of the battalion at least 3 years. The Van Duzen Fire Safe Council has successfully completed several shaded fuel breaks in and around the community Bridgeville and Blocksburg and along the Van Duzen River corridor. Battalion 3 has a proven Multi Incident (MICA) Lightning Plan, and is updated regularly due to lightning potential, with an established Incident Command Post held at the Battalion Headquarters in Fortuna. Other emergency pre-plans, consisting of roads, addresses, and assets at risk within Battalion 3, have been established, and are monitored for changes annually. Public education programs and roadside signs are maintained for public use. The Battalion prioritizes fuel reduction projects and affords the improved asset protection within the wildland urban interface areas of the Battalion.

HUU Battalion 4

Battalion Overview:

Humboldt Del Norte Unit Battalion 3 is located in the Central portion of the Humboldt Del Norte Unit. The Battalion is comprised of state, federal and local firefighting resources. Battalion 4 borders the USFS Six Rivers National Forest to the East and the CAL FIRE Shasta Trinity and Siskiyou Units to the east. Within Battalion 4's Direct Protection Area (DPA), there is a mixture of private property, National Forest, BLM, and State land. The Redwood National Park is also located within the battalion and is a large old growth redwood preserve. The State and National Park area is also home to the Largest Roosevelt Elk Population within the State of California.

Battalion Resources:

Fire Protection within the Battalion is largely made up of paid local government and volunteer Fire Departments and seasonal staffing within Cal Fire. The Paid Fire Departments include Arcata Fire, and Blue Lake Fire with a Paid Chief. The volunteer departments include Kneeland Fire Protection District, Fieldbrook Fire Protection District, Trinidad Volunteers, Westhaven Volunteers, Willow Creek Volunteers, Salyer Volunteers, Hawkins Bar Volunteers, Orick Volunteers. The Green Diamond and Humboldt Redwood industrial timberland companies also have resources available to assist Cal Fire in Fire suppression activity.

CAL FIRE

There are two seasonal Schedule B Stations in Battalion 4. Trinidad Station houses two Type III schedule B engines and a Battalion Chief. Elk Camp Station houses one Type III schedule B engine. The Battalion also has an Amador contract for the County Service Area 4.

Districts and Municipality

There are seven Fire Protection Districts with in the Battalion; they are the communities of Kneeland Fire Protection District, Arcata Fire Protection District, Blue Lake Fire Protection District, Fieldbrook Fire Protection District, Willow Creek Fire Protection District, Orick Fire Protection District. Orleans Somes Bar Community Services District provides funding for Orleans fire protection. Each of these Fire Districts has portions of their districts that are SRA. County Amador (County Service Area 4) district is also located within Battalion 4.

Wildland and Urban Interface:

Battalion 4 is largely comprised of private timberland with Green Diamond Timber being largest industrial land holders. There are several municipalities and small communities with mostly residential structures spread out in the SRA. The cities of Arcata, McKinleyville and Trinidad are the largest cities in the Battalion with several commercial properties as well as residential structures some of which are located in the

urban interface. Other small communities located within the Battalion have many residential structures located mostly in the urban interface.

Fuels-Weather-Topography:

Most of Battalion 4 is comprised of Coast redwood and Douglas-fir and mixed brush. The east side of the battalion is more of a Douglas- fir oak woodland fuel type, depending on the exposure. Under normal summer high pressure, the fire activity will diminish after dark. The normal wind pattern is a west to southwest push during the afternoon, and there are many occasions we will get a significant up river wind in afternoon up in the Redwood Creek and Klamath River canyons. Battalion 4 is located in the coast mountain range. The majority of the Battalion has been shaped over millions of years by marine uplift and seismic activity. The Battalion lies between pacific ocean to the west and the coast mountain range to the east. The Redwood Creek and Klamath River and Trinity River drainages run through the central and eastern portion of the Battalion and the Mad River runs along the southwestern edge of the Battalion all with very steep and narrow canyons.

The interior area of the Battalion is more typical of the Sierra front country fuel type. It features more open stands of fir as well as areas of a typical oak woodland community. The understory is grass and brush (ceanothus). This area escapes the fog belt and is much warmer and drier.

The coastal strip area of the Battalion is a true redwood forest with the biomass equal to or greater than a rainforest. This area sees a significant amount of rainfall in addition to being in a fog belt for a good portion of the summer months.

Battalion Fire History:

Battalion 4 has a significant fire history of both lightning and human-caused fires. The majority of the fires burn from the southwest under a normal summer time high pressure in the afternoon. Major fires that have threatened the community of Hoopa and Willow Creek including the Megram Fire (125,072 Acres) and many Six Rivers National Forest Fires. The Battalion has also experienced lightning sieges that have included multiple major fires in Klamath and Trinity River Drainage. Hoopa Valley also has an inordinately high number of arson fires each year.

Fuels Reduction / Battalion Projects and Priorities:

There are three active fire safe councils within Battalion 4. The Humboldt County Fire safe Council, Willow Creek Fire Safe Council and the Orleans Somes Bar Fire Safe Council. The Humboldt County Fire Safe Council covers both the Redwood Creek and Mad River Drainages. Recently, Willow Creek and Orleans and Jacoby Creek were awarded and designated as Firewise communities. The Willow Creek and Orleans Fire Safe Councils have been successful in the capturing fuel reduction grant opportunities.

Battalion 4 personnel have been completing LE-100 inspections in most areas of the battalion at least 3 years. The Willow Creek and Orleans Somes Bar Fire Safe Council has successfully completed several shaded fuel breaks in and around the communities of Willow Creek and Orleans. Battalion 4 has a proven Lightning Complex Area (LCA) Lightning Plan, and is updated regularly due to lightning potential, with an established Incident Command Post held at the Battalion Headquarters in Trinidad. Other emergency pre-plans, consisting of roads, addresses, and assets at risk within Battalion 4, have been established, and are monitored for changes annually. Public education programs and roadside signs are maintained for public education. The Battalion prioritizes fuel reduction projects that afford improved asset protection within the wildland urban interface areas of the Battalion.

HUU Battalion 5

Battalion Overview:

Humboldt-Del Norte's Unit Battalion 5 is located at the northern end of the Humboldt-Del Norte Unit and encompasses all of Del Norte County. The Battalion is comprised of state, federal and local firefighting resources. Battalion 5 borders the USFS Six Rivers National Forest to the east, the Siskiyou/Rogue National Forest to the north at the Oregon State line, and is located adjacent to the coastline with the Pacific Ocean as its most western boundary. Within Battalion 5's Direct Protection Area (DPA), there is a mixture of private property, National Forest, National and State Park land, and Tribal land.

Battalion Resources:

Fire Protection within the Battalion is largely made up of the volunteer Fire Departments and seasonal staffing within CAL FIRE, as well as Alder Conservation Camp. There are five fire districts and one municipality fire department that make up the volunteer force. Additionally, National Parks staffs a wildland type 3 engine seasonally. The California Department of Corrections and Rehabilitation staffs a 24/7 type 2 engine at Pelican Bay State Prison available for local response.

CAL FIRE

There are two seasonal Schedule B Stations, one lookout and Alder Conservation Camp located in Battalion 5. Assigned to Crescent City Station is one type III schedule B engine, a Battalion Chief, a Forester II, a Fire Captain Specialist. Assigned to Klamath Station is one type III schedule B engine. Red Mountain lookout is staffed seasonally.

Districts and Municipality

There are five Fire Protection Districts within the Battalion; they are the communities of Klamath, Crescent City District, Fort Dick, Smith River, and Gasquet. Each of the fire departments has a portion of their district that is SRA. There is one municipal fire department and that is the Crescent City Fire Department.

Wildland and Urban Interface:

Battalion 5 is largely comprised of private timberland with Green Diamond Resource Company being the largest industrial land holder. State and National Parks also are large land owners in the battalion. There are several small communities with mostly residential structures spread out in the SRA. Crescent City is the largest town in the Battalion with several commercial properties as well as a few hundred residential structures in the urban interface. The communities of Gasquet, Smith River, Hiouchi, Fort Dick, and Klamath all have various levels of structural density in the Interface.

Fuels-Weather-Topography:

Most of Battalion 5 is comprised of dense timber including Coastal Redwood, Spruce and Red Alder combined with various heavy-mixed brush species. Additionally, State Parks owns property that includes thousands of acres of grass. The normal wind pattern is a west to southwest push during the afternoon. The coastal strip of the Battalion is often shrouded in a fog blanket most of the summer due to the high temperatures inland. However, 10-15 miles inland it is common to reach triple digit temperatures. Battalion 5 is located in the Coast mountain range. The majority of the Battalion has been shaped over millions of years by marine uplift and seismic activity. The Battalion lies between Pacific Ocean to the west and the Oregon border to the north. The Smith and Klamath River drainages run east and west of the Battalion with very steep and narrow canyons.

Battalion Fire History:

Battalion 5 and Del Norte County have had significant fire history of both lightning and human-caused fires. The majority of the fires occur at the end of the summer season and the early part of fall. This trend is due to the heavy fuel loading and the associated seasonal drying finally peaking. Additionally, the weather pattern changes result in increasing burning conditions. In recent times there have been several major fires that have threatened communities in Del Norte County including the Biscuit Fire, Blue 2, and Panther Fires. Commercial Timber has also been threatened and damaged in recent incidents like the Arrow Complex and Wilson Fires. Fires regularly occur within National and State Park property where suppression efforts are often adjusted over environmental concerns like the Smith and Ah-pah Fires.

Fuels Reduction / Battalion Projects and Priorities:

There is one active Fire Safe Council within Battalion 5. The Del Norte County Fire Safe Council covers the entire county including the communities of Gasquet, Smith River, Fort Dick, Crescent City, Hiouchi and Klamath. The Del Norte County Fire Safe Council covers both the Smith and Klamath River drainages.

Battalion 5 personnel have been completing LE-100 inspections in most areas of the Battalion for at least 10 years. The Del Norte Fire Safe Council has successfully completed several shaded fuel breaks in and around the community of Gasquet and Hiouchi. Battalion 5 has a proven Lightning Complex Area (LCA) Lightning Plan, and it is updated regularly due to lightning potential. The Incident Command Post could be held at the Battalion Headquarters in Crescent City. Public education programs are provided annually to each of the schools in the county. Also, the Battalion staff participates in County EOC and disaster drills.

Fire Prevention

The prevention battalion through comprehensive engineering and law enforcement programs strives to prevent fires. Reduction of loss from wildland fire each year is the goal of extensive planning by CAL FIRE, communities, coordination with non-profit groups and interagency cooperation. The HUU prevention officers are busy year round investigating fire causes, interviewing witnesses, issuing citations and setting up surveillance operations. Additionally, law enforcement staff provides assistance when requested by local fire and law enforcement agencies in arson, bomb, fireworks, and fire investigations.

Training Battalion

The training battalion coordinates a wide range of firefighter and support staff training from the local courses, to nominations for national courses. Maintaining and developing a skilled, professional workforce that meets required training standards is a major goal of the training battalion. This improves service to the public while ensuring a focus on firefighter and public safety. The Unit endeavors to have staff qualified or in training to fill Incident Command System positions at all levels, from local to national Type 1 incidents. The training battalion plays a vital role in developing the hands-on skills, the career foundational skills, and the management skills necessary to provide for those that provide for the public's safety.

Eel River Camp

Eel River Camp is located in the southern portion of the Unit just west of Redway. They have five crews normally staffed during the week that go out to various projects in the unit. Eel River Camp works a lot with Cal Trans for road hazard improvements. Which include hazardous fuels reduction, shaded fuel breaks, improving emergency evacuation road access. Eel River Crews also spend 1000s of hours of project work in the Community of Shelter Cover working on hazardous fuels reduction along the main

road in to the community “the Shelter cove Road”. These projects are funded through the Community of Shelter Cove and Hazardous Fuels Reduction Grants.

High Rock Camp

High Rock Camp is located centrally in the Unit just off the east side of Hwy 101 near the community of Redcrest. High Rock Camp staffs five crews during the week that are avail for fire assignment and project work. When not on a fire the crews work on various projects with State agencies, BLM, Humboldt Redwood Company, UC Coop Extension and other local public organizations. During the past year the crews have focused their projects on shaded fuel breaks throughout the county, hazardous fuels reduction projects in the Weott, honeydew, and Mattole areas. High Rock and Alder Camp were also involved with a major project funded by the UC Coop Extension for the removal of Sudden Oak Death affected areas.

Alder Camp

Alder Camp is the Northern most camp in the Unit located to the west of the community of Klamath. Alder Camp Staffs five crews during the week that are available for fires and projects throughout the unit. Alder Camp works closely with National Park Service, local Fire Safe Counsel Groups, Bureau of Indian Affairs as well as many other local government and state agencies. Some of their main projects over the during the last year include Redwood National Parks fuel breaks in the Bald Hills area, fuel breaks along iron gate road funded by the Yurok Tribe, State Parks hazardous fuels reduction project in the area of Little River State Beach to the North end of the unit.

Unit Desired Future Conditions

Each battalion has areas where wildland fire could threaten important assets to the communities. Our goal is to increase public awareness of these conditions in hopes of spurring stakeholder interest to taking a more active role in improving defensible space. For many areas we hope to reduce the fire hazard through fuel reduction and increase public and firefighter safety, by helping improve the means of ingress / egress.

Additionally we hope to improve or maintain the many ecosystems that surround us in order to maintain the quality of life for the residents of Humboldt, Del Norte, and Trinity counties. This would include cultural burning to help maintain the Native American culture.

Area Accomplishments

The County and HUU Cal Fire staff has been successful in the CWPP update process. Cal Fire staff along with the Humboldt County Planning Department staff work together in the development and approval of the County’s Master Fire Protection Plan (MFPP). The MFPP is a major part of the overall operating plan for the county. The Humboldt County Master Fire Protection Plan serves as the Community Wildfire Protection Plan

(CWPP) for Humboldt County, California and was approved. CWPPs were created through the Healthy Forests Restoration Act (HFRA). As defined by the HFRA, the requirements for a CWPP are a collaborative process, prioritization of fuel reduction projects, and treatment of structural ignitability.

CAL FIRE Chipper Program

Humboldt Del Norte Unit augments funding for all 10 fire safe councils through grant support review and matching funds through staff time, chipper use, fire crews, engines and dozers. These resources are channeled mostly through letters of commitment in the grant application process and range from \$9,000 – \$60,000 depending on the type of grant application.

Prescribed Fire Program (VMP)

Prescribed fire can be an effective tool for fuels reduction, in addition to providing other positive results in managing the landscape. These projects may be small in scale, from landowner conducted individual burns through our LE-5 and LE-7 permit process, to large burns conducted by CAL FIRE under the Vegetation Management Program. Managed timberlands realize fuel reduction when piles are burned or a treatment unit is broadcast burned. CAL FIRE is also an active cooperator with other public agencies such as State Parks – providing equipment, crews, and other resources to assist with their burns. Training burns are also conducted, which may produce a fuels reduction side benefit.

Treating areas under CAL FIRE's VMP brings the liability for the burn on the State, under a cost-share contract. These projects are often "targets of opportunity" since it takes a landowner willing to enter an agreement with the State, a project that realizes adequate public benefit, and is feasible to conduct without significant impact to the environment or communities. Lists of projects that are current, under development, and recently conducted and may be renewed are included in Appendix C. The goal is to have at least one VMP project in each of the five field battalions. Burn windows are usually limited to September and October, so approved projects may not be completed within the 3-year contract period.

Private landowners, local fire agencies, and fire safe councils also conduct burn operations. From May 1st until the end of the declared fire season, a CAL FIRE permit is required for burning. Outside of that period, burns may be conducted without a CAL FIRE permit, so our knowledge of those projects is often limited. The North Coast Unified Air Quality Management District requires a smoke management project permit at all times during the year. CAL FIRE coordinates with the AQMD for small pile "dooryard" permits – consolidated into a single document issued by the AQMD. Larger burns are not coordinated between the agencies unless CAL FIRE is conducting the burn.

Burning programs are also conducted on public lands by our federal cooperators. Redwood National Park has an active program that often uses CAL FIRE resources.

The BLM burns are usually coordinated with CAL FIRE since most BLM areas are within the State's Direct Protection Area by agreement. The US Forest Service – Six Rivers National Forest also has an active fuels treatment program. CAL FIRE assistance on these projects is rarely requested.

Sudden Oak Death Areas

Scattered throughout the Unit are areas of Sudden Oak Death infestation. These areas become priorities for fuel treatment to check expansion of the disease, and reduce fuels buildup. Research conducted by UC Cooperative Extension, in cooperation with CAL FIRE and other private landowners, has examined fuel loading and predicted fire behavior in SOD affected stands. These areas produce greater fire control challenges due to higher rates of spread, greater flame lengths, and greater potential for failure of standing trees. Where SOD is expanding in newly found locations, the primary strategy is isolating the infection site with a 300 foot buffer – removing standing tanoak and California bay. This can check the advance of *Phytophthora ramorum*, the pathogen that causes SOD. Other infected areas can become a priority for fuels treatment along roads and near communities, as SOD appears to produce 100 percent mortality in tanoak.

APPENDIX A: PRE- FIRE PROJECTS

On the following partial Table of fuel reduction projects that have been identified. These projects have been identified through local community meetings along with Fire Safe Council members, state, local, and federal fire agencies. The project information has been mapped and made available in the Humboldt County Master Fire Protection Plan as well as local area CWPP's. This data is available online at the links shown below in appendix G of the Humboldt County Master Fire Protection

http://co.humboldt.ca.us/planning/fire_safe_council/local_fsc/orleans/cwpp-osb_fsc_draft_12_1_09_forreview.pdf

http://co.humboldt.ca.us/planning/fire_safe_council/fsc_default.asp

Table G-2 Orleans Community-Identified Risks and Hazards

Map ID #	Feature Description	Feature Subtype
ORL36	Central Orleans	ignition hazard
ORL22	GO Road	ignition hazard
ORL23	Hwy 169	ignition hazard
ORL78	Hwy 169	ignition hazard
ORL21	Hwy 96	ignition hazard
ORL24	Hyw 169 Memaw Creek to Yurok Fire Station	ignition hazard
ORL27	Hyw 169, lower Cappell	ignition hazard
ORL26	Lower Nantucket Road	ignition hazard
ORL72	McKinnon Hill Road (slash)	ignition hazard
ORL29	Mouth Of Camp Creek	ignition hazard
ORL33	Perch Creek/Red Cap Road Area	ignition hazard
ORL34	Sandy Bar	ignition hazard
ORL32	South Orleans	ignition hazard
ORL31	Thunder Mtn/ Madrone Lane	ignition hazard
ORL35	Upper Prairie Lake Road	ignition hazard
ORL28	limited access to 4wd roads (Wautec area)	impedance

Table G-3 Orleans Community-Identified Projects

Map ID #	Project Priority	Project Description	Completed Project?	Project Category
ORL66	1	Mouth Of Camp Creek including Gold Dredge Road (and other areas that were previously burned)		Other Fuel Rx
Non map feature	2	Owl Mine Road Fuel Break		Fuel Break
Non map feature	3	Orleans Mt. Repeater (install)		Communication
Non map feature	4	Map and Maintain tanker fill sites (private lands)		Water
Non map feature	5	Perch Creek Watershed private and public land (municipal water source) protect watershed resources		Other Fuel Rx, Water
Non map feature	6	Redcap Road fuel break on public and private land		Fuel Break
ORL68		Bacon Flat Road Shaded Fuelbreak		Fuel Break
No Map Data		BLM fuels reduction grant <i>Community Fire Risk Reduction Project</i> (19.98 acres treated)	Completed	Other Fuel Rx
No Map Data		BLM fuels reduction grant <i>Orleans Valley Wildfire Risk Reduction Project</i> (22.15 acres treated)	Completed	Other Fuel Rx
No Map Data		BLM grant fuel reduction project <i>Fire Safe Planning and Implementation Grant</i> (19.72 acres treated)	Completed	Other Fuel Rx
No Map		BLM grant fuels reduction <i>Orleans Community</i>	Completed	Other Fuel Rx

G-3

Table showing identified proposed projects for the Orleans - Somes Bar area of eastern Humboldt

Prescribed Burn Projects

The following projects are conducted by CAL FIRE, or in part with CAL FIRE assistance.

Humboldt-Del Norte Unit Fire Management Plan 2013

VMP Project Name	Location	Comments
Hacketsville	Rio Dell – Bat 3	Active to 2013
Sweet	Petrolia – Bat 2	Active to 2013
Big Bend	Maple Creek – Bat 4	Renew to 2014
England	Blue Lake – Bat 4	New in 2011
Metz	Whitethorn – Bat 1	New in 2011
Teasley	Dinsmore – Bat 3	New in 2011
Perimeter	Bull Creek – Bat 2	State Park, BLM, Private New in 2011
Prosper Ridge	Prosper Ridge – Bat 2	New in 2012

Non-VMP Projects	Location	Comments
Fox Camp	Humboldt Redwoods SP	Active - ongoing
Look – Luke Prairies	Humboldt Redwoods SP	Due for burn
Needle Rock	Sinkyone Wilderness SP	New
Boyes Prairie	Prairie Creek SP	Ongoing
Redwood National Park	Various	Annual participation
Grasshopper Prairies	Humboldt Redwoods SP	Active - ongoing
Jones Beach	Sinkyone Wilderness SP	Active - ongoing
Cookson Ranch SOD	Redwood Valley	SOD Fuels Reduction with UC Coop Extension

These projects are anticipated to be active in the next three years. Other areas have had past treatment and may be considered for future activity. Many other projects occur with CAL FIRE assistance – through the conservation camp program providing crews to sponsoring agencies. CAL TRANS, BLM, City of Arcata, and State Parks are examples where additional fuels reduction activity is conducted.

Batt Planning area	Project Number	Project Name	Status	Estimated Completion Year	Project Type	Net Acres
4	2010T3-1	Willow Creek Fire Safe Day & Youth Ecology Fair	O	2013	Public Education	
3	2010T3-3	Firewise Bridgeville Fire Safe Day	O	2013	Firewise Certification	
1&2	2010T3-4	The Southern Humboldt Fire Safe Council Community Wildfire Protection Plan	C	2013	CWPP	
4	2010T3-5	Orleans CWPP and Firewise Community Project	O	2013	CWPP	
2	2010T3-6	Lower Mattole Fire Plan update	C	2013	CWPP	
2	2010T3-7	Firewise Certification for Petrolia and Honeydew	C	2012	Firewise Certification	

Batt Planning area	Project Number	Project Name	Status	Estimated Completion Year	Project Type	Net Acres
2	2012-1	Lost Flat Ranch Shaded Fuel Break HFT Biomass Utilization	O	2013-14	Fuel Modification	300
4	2012-2	Redwood Valley Sudden Oak Death	O	2012	Disease Fuel Reduction	375
4	2012-3	Sunny Brae Shaded Fuel Break HFT Fuel Modification	P	2013	Fuel Modification	18
2	2012-4	Cathy Road Shaded Fuel Break HFT Fuel Modification	O	2013	Fuel Modification	18
1,2,3,4	2012-5	Humboldt County CWPP Update	O	2013	Fire Safe Council	
1,2,3,4	2013-2	HUU- Fire Danger Operating Plan	O	2013	HUU Planning	
2	2012-4	Mattole Road Shaded Fuel Break	O	2013	Fuel Modification	36
3	2012-HUU-2	Sunny Brae Shaded Fuel Break	C	2013	Fuel Modification	18
4	2012-7	Willow Creek Firewise Certification	C	2013	Firewise Certification	
4	2012-9	Orleans Firewise Certification	C	2013	Firewise Certification	
3	2013-1	Jacoby Creek Firewise Certification	C	2013	Firewise Certification	

Status Guide: A = Active, P = Planning, C = Completed, O = Ongoing, M = Maintenance.

APPENDIX B: UNIT GOALS AND OBJECTIVES

HUU pre fire planning goals are to augment the level of Fire Wise Communities throughout Humboldt - Del Norte Unit. During the past 12 months alone we have successfully brought together three new Fire Wise Community certifications and are currently working on several; other certifications at this time. This collaborative effort has been accomplished through the hard work and collaboration of local Fire Safe Councils.

Members of the community have been able to realize the benefits of their Firewise involvement in several ways. First and foremost has been the greater awareness of wildfire issues and prevention made possible through an ongoing educational campaign. When it comes to protecting communities from wildfire, there are many players who have a stake in making sure that people, homes, property and the surrounding land are kept safe. When these parties can come together and act collectively, the results can be astounding and inspiring. There is no thing – and nothing – that can stand in their way.

As stated by Keith Worley, a forester, arborist and land development consultant “Basically, we’re no different than people who live in flood, earthquake or hurricane zones where these natural hazards pose a threat to homes. Becoming Firewise also was about protecting the environment around us.”



About Firewise

The national Firewise Communities program is a multi-agency effort designed to reach beyond the fire service by involving homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire - before a fire starts.

VISION: Wildland fires can occur in areas of residential development without the occurrence of disastrous loss.

MISSION: To promote community-wide responsibility in the use of technology, policy and practices that minimize the loss of life and property to wildland fire independent of firefighting efforts.

The Firewise Communities approach emphasizes community responsibility for planning in the design of a safe community as well as effective emergency response, and individual responsibility for safer home construction and design, landscaping, and maintenance.

The national Firewise Communities program is intended to serve as a resource for agencies, tribes, organizations, fire departments, and communities across the U.S. who are working toward a common goal: reduce loss of lives, property, and resources to wildland fire by building and maintaining communities in a way that is compatible with our natural surroundings.

Member Agencies

The Firewise Communities program is part of the National Wildland/Urban Interface Fire Program, which is directed by the National Wildfire Coordinating Group's (NWCG) Wildland/Urban Interface Working Team (WUIWT), a consortium of wildland fire organizations and federal agencies responsible for wildland fire management in the

United States. The WUIWT includes:

- USDA Forest Service
- USDI Bureau of Indian Affairs
- USDI Bureau of Land Management
- USDI Fish & Wildlife Service
- USDI National Park Service
- Federal Emergency Management Agency
- US Fire Administration
- International Association of Fire Chiefs
- National Association of State Fire Marshals
- National Emergency Management Association
- National Fire Protection Association
- State forestry organizations

Vegetation management planning through prescribed burns is also a high priority and goal of the Humboldt-Norte Unit. Many VMP projects have been successfully executed in recent years with many projects under current review. These projects provide many benefits including but not limited to unit personnel training, range and forage improvement as well as habitat maintenance for both flora and fauna.



The Humboldt-Del Norte Unit also strives to support and promote programs and projects that focus efforts on the below vision and central goals of the California Strategic Fire Plan. This support is a manifest of the above mentioned goals as well as supporting local fire safe councils in an effort to obtain grant funding for projects that meet the objectives of the California Strategic Fire Plan.

Vision

A natural environment that is more resilient and man-made assets which are more resistant to the occurrence and effects of wildland fire through local, state, federal and private partnerships.

The central goals that are critical to reducing and preventing the impacts of fire revolve around both suppression efforts and fire prevention efforts. Major components are:

- Improved availability and use of information on hazard and risk assessment

Land use planning: including general plans, new development, and existing developments
- Shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans (CWPP)
- Establishing fire resistance in assets at risk, such as homes and neighborhoods
- Shared vision among multiple fire protection jurisdictions and agencies
- Levels of fire suppression and related services
- Post fire recovery

APPENDIX C: COMMUNITY WILDFIRE PROTECTION PLANS:

Humboldt County

The Humboldt County Wild Fire Protection Plan (CWPP) focus is on improving the countywide fuels reduction and fire safe planning strategy through a coordinated update and refinement of the Humboldt County CWPP and local CWPPs

The mission of the Humboldt County Fire Safe Council (FSC) is to:

Serve as a forum for the implementation of the measures outlined in the Master Fire Protection Plan (MFPP), share fire-safety information, assess fire risk, promote community fire-safe planning and coordination, link fire-prevention programs, and support the fire service and local fire safe councils.

The Humboldt County Board of Supervisors formed the ad-hoc advisory FSC in 2002 to guide the development of a countywide Fire Plan and assist with its implementation. With the guidance of the FSC, the County of Humboldt prepared the "Humboldt County Master Fire Protection Plan", the County's equivalent to a Community Wildfire Protection Plan .

The fire plan was completed and approved by the Board of Supervisors in 2006 and is intended to be used as a framework for fire coordination, prevention, and protection throughout the county. The Community Development Services Department managed the Fire Plan preparation with assistance from local consultants, Planwest Partners and ForEverGreen Forestry. The FSC is now in the process of guiding a two year plan-update process with the goal of presenting an updated plan to the Board of Supervisors in August of 2012.

The Council also serves as a forum for community organizations and representatives to share fire-safety information, assess fire risk, set fire protection priorities, and develop policies for integration into the County General Plan.

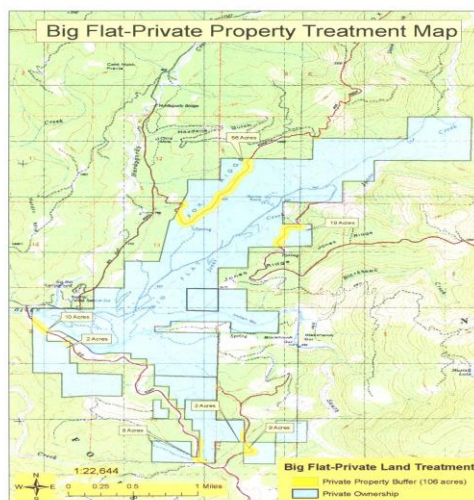
Two other areas of Humboldt County have completed Community Wildland Protection Plans: 1) Lower Mattole Fire Plan for the Lower Mattole Fire Safe Council and 2) Upper Mattole Fire Plan for the Southern Humboldt Fire Safe Council. Both plans were funded with monies from USFS Community Development grants. HUU staff were involved in an advisory role in each of these plans.

More recently, the Willow Creek Fire Safe Council has obtained a Community Wildfire Protection Plan CWPP for the Willow Creek Area. This effort was supported by HUU staff in an advisory role in coordination with the Willow Creek FSC, Willow Creek Fire and the USFS.

http://co.humboldt.ca.us/planning/fire_safe_council/fsc_mfpp_cwpp.htm

Del Norte County

The Del Norte County Fire Safe Council in cooperation with the Del Norte County Board of Supervisors has an approved Community Wildfire Protection Plan.



The above Map shows one of the Current projects that is fund by a USDA WUI grant in Del Norte County Fire Safe Council area.

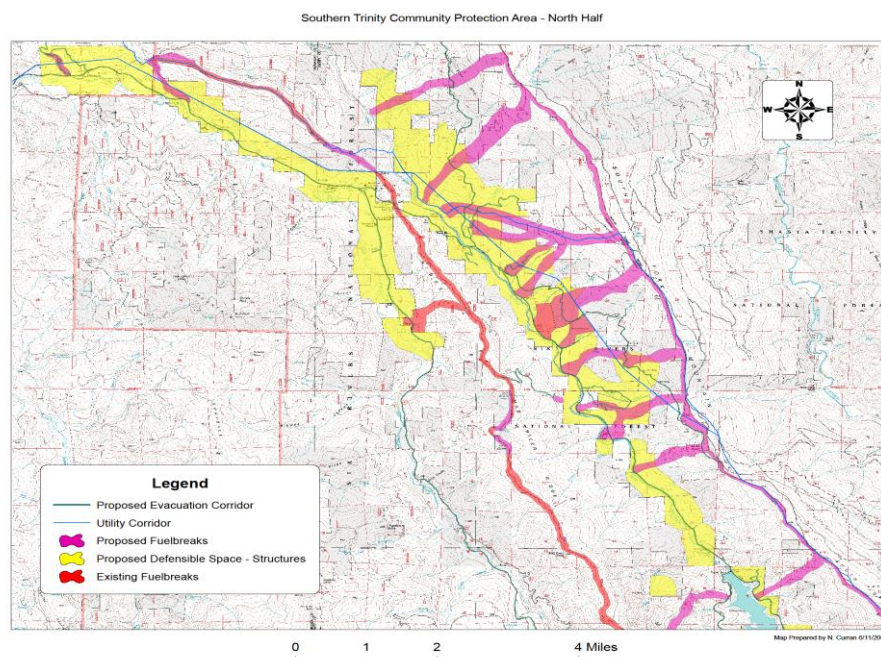
To view the Del Norte County approved CWPP see the link below.

http://slvgis.info/Del_Norte_CWPP/DNFPD_CWPP_Final_4_10_2009.pdf

Trinity County

The Trinity County Fire Safe Council has been holding monthly meetings addressing the Various projects, and plan processes that they are involved in. Currently Trinity County is in the process of being reviewed and updating the CWPP. HUU staff have attended regularly in an advisory role. The link below will allow review of the Trinity County CWPP approved in 2005.

http://www.tcrd.net/pdf/TC_Wildfire_Protection_Plan.pdf



The above map is a landscape level plan proposal in the southern trinity county area. Again in concert with the California Strategic Fire Plan and in cooperation with community and agency input landscape level planning can be achieved. Fire hazards can be reduced with a shared vision among communities and agencies. To view the California Strategic Fire Plan click in the link below

<http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf668.pdf>

Willow Creek

The "Community Wildfire Protection Plan for the Greater Willow Creek Area" was accomplished by the Council, funded by a grant from the USDA Forest Service through the California Fire Safe Council Grants Clearinghouse.

Willow Creek is the first community in Humboldt County to be recognized by the national Firewise organization as a Firewise Community. The Willow Creek Fire Safe Council board of directors serves as the Firewise Communities board for Willow Creek.

MISSION STATEMENT

The mission of the Willow Creek Fire Safe Council is to reduce wildfire risk and increase survivability by implementing fuels reduction projects and encouraging residents of the Willow Creek area to make their homes, neighborhoods and communities fire safe.

OBJECTIVES

- * Increase community awareness and understanding of both the benefits and threats of wildland fire
- * Educate residents on ways to protect their lives and property from loss to catastrophic wildland fire
- * Generate individual and community action to reduce wildfire hazards and plan for emergency response
- * Reduce wildfire hazards by removing flammable vegetation around homes and evacuation routes
- * Enhance communication between the public and federal, state, county and local agencies to identify and prioritize hazard reduction projects and co-ordinate community planning
- * Develop and monitor a Community Wildfire Protection Plan for the Willow Creek area to address hazard mitigation, community preparedness, structure protection and wildfire response
- * Engage the youth of our communities in fire prevention by providing activities and educational opportunities related to fire safety and protecting natural resources

To view the Willow Creek Community Fire protection Plan click in the link below:

http://co.humboldt.ca.us/planning/fire_safe_council/pdf_files/willowcreekcwpp/willowcreekcwpp-final-body.pdf

APPENDIX D: ANNUAL FIRE SEASON REPORT

The largest fire on record for this year (2012) was the Spanish Fire which started on August 31, 2012 the fire cause was a camp fire. The fire consumed 132 acres of woodland and timber before it was controlled on September 9th, 2012.

The Unit responded to a total of 338 fires in 2012, including wildland, structure, and vehicle fire incidents. That was up from 2011, when HUU responded to 202 fires.

A total of two (2) fires out of the 180 wildland fire responses in the Unit were over 10 acres, (1 % of total) or 98 % of all unwanted fires were contained at 10 acres or less in 2012. Initial attack success was at 99% for the staffed period. The 2012 fire season was an initial attack success and met the standards of Fire Protection Handbook section 7001.2.

Fire Season Data 2006 - 2011

Fire suppression activities have a major influence on fire size and initial attack success. The 2005 to 2010 fire season information is summarized below.

2007 Initial Attack Success / Ignitions – 122 / 126 Large Fires: 4 Wildland engines staffed – 5/26 - 12/17 Peak staffing – 6/13 – 10/21 Aircraft: Copter Air Attack 7/16-10/17 Tanker 8/22-10/17 Burning suspended – 7/1 to 10/8 Comments -
2008 Initial Attack Success / Ignitions – 146 / 154 Large Fires: 8 total including Colony Fire 140 Acres Wildland engines staffed – 5/22 – 11/09 Peak staffing – 6/14 – 11/3 Aircraft: Copter Air Attack 6/19-10/27 Tanker 7/11 – 10/16 Burning suspended – 6/23 to 10/4 Comments – 4/0 staffing. Lightning series across north CA. 60+ fires reported in HUU.
2009 Initial Attack Success / Ignitions – 111 / 124 Large Fires: 13 total including Wilson 280 Acres Wildland engines staffed – 6/1- 10/30 Peak staffing – 7/2 -10/09 Aircraft: Copter Air Attack 6/15-10/16 Tanker 6/30-10/16 Burning suspended – 8/1 -10/16 Comments – 4/0 staffing
2010 Initial Attack Success / Ignitions –110/1 Large Fires: Buckeye, 205 ac. Wildland engines staffed –5/31 to 11/1 Peak staffing – 6/28 to 9/19 Aircraft: Copter Air Attack 6/15- Tanker 6/15-10/15 Burning suspended – 7/26-9/27 Comments – 4/0 staffing through 9/19.
2011 Initial Attack Success / Ignitions –93/2 Large Fires: Spanish, 498 ac, Yager 60 ac. Wildland engines staffed –6/13 to 10/24 Peak staffing – 7/4 to 10/15 Aircraft: Copter Air Attack 7/1-10/15 - Tanker 7/1-10/15 Burning suspended – 7/27-10/20 Comments – 4/0 staffing through 10/15.
2012 Initial Attack Success / Ignitions –93/2 Large Fires: Spanish, 132 ac, Arrow Complex 117 ac. Wildland engines staffed –5/28 to 10/14 Peak staffing – 7/4 to 10/15 Aircraft: Copter Air Attack 7/1-10/14 - Tanker 7/1-10/15 Burning suspended – 7/11-10/14 Comments – 3/0 staffing through 10/14.

Initial attack success, ignition, and fire size data was derived from the FRAP ignitions.dbf database. This database reflects an estimated 70% of reported ignitions in the Unit. It is based upon data extracted from the CAIRS (2008 to present) and EARS (pre-2008) fire reporting systems, as well as the Computer Aided Dispatch (CAD) system for location data. Staffing dates were derived from station logs.

APPENDIX E: SRA / DPA TABLE*California Department of Forestry & Fire Protection***Humboldt – Del Norte Unit**

Derived from the DPA11_2 and SRA10_2 data layers

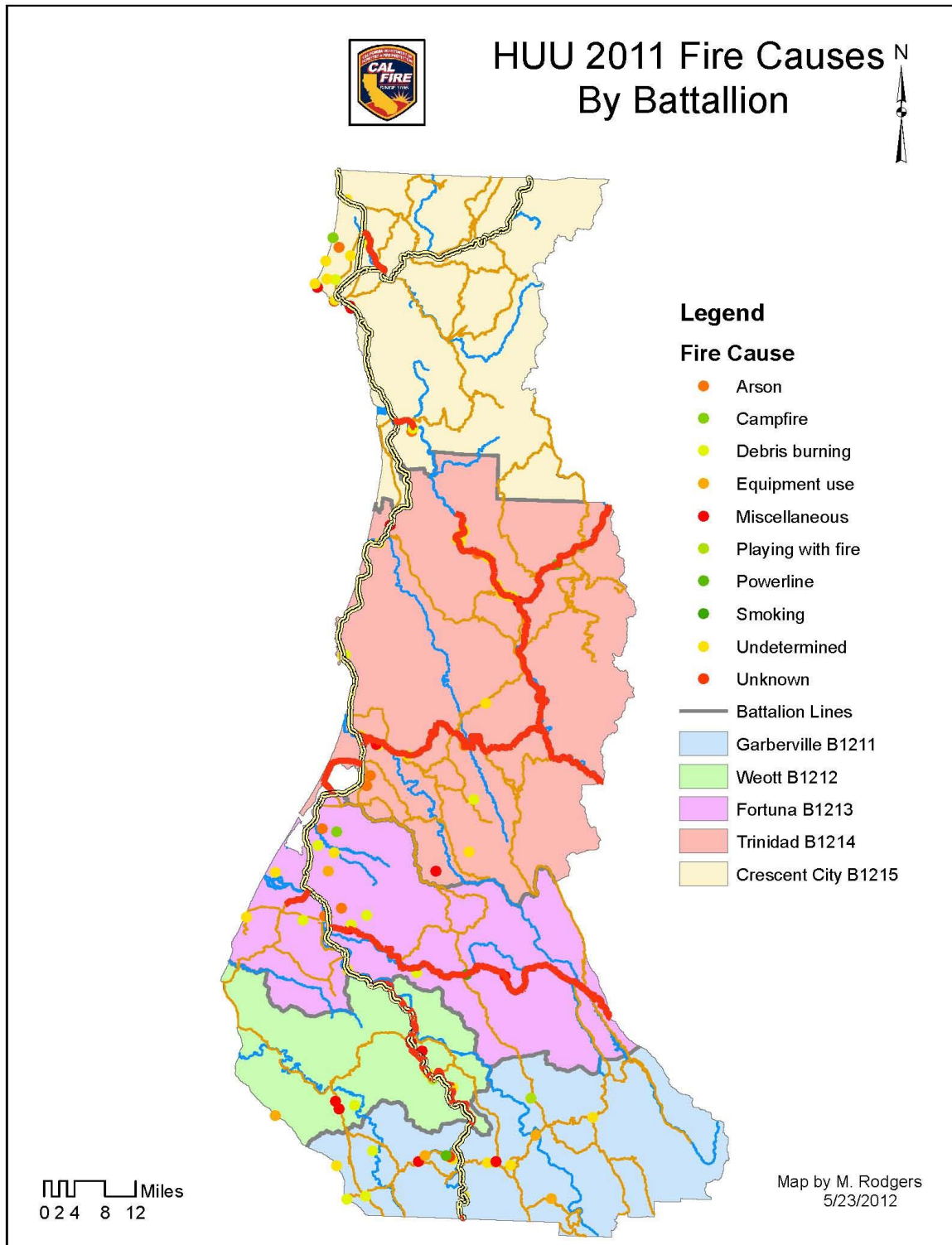
<u>Agency</u> <u>Acreage Difference</u>	<u>Wildland Responsibility</u> Total Acres	<u>Direct Protection</u> Total Acres	
CDF	1,783,733	1,927,651	143,918
Hoopla (HIA)	90,836	90,836	
BIA	9,491	0	
LRA	85,768	86,476	708 (FRA)
BLM	88,411	0	
Redwood NPS	82,670	82,670	
Six Rivers NF	926,302	1,059,465	133,163
Other NF (SIF, MNF, SHF)	34,483	40,622	6,139
Other (USFWS, DOD)	2,296	2,079	
Totals	3,289,799	3,290,704	902*

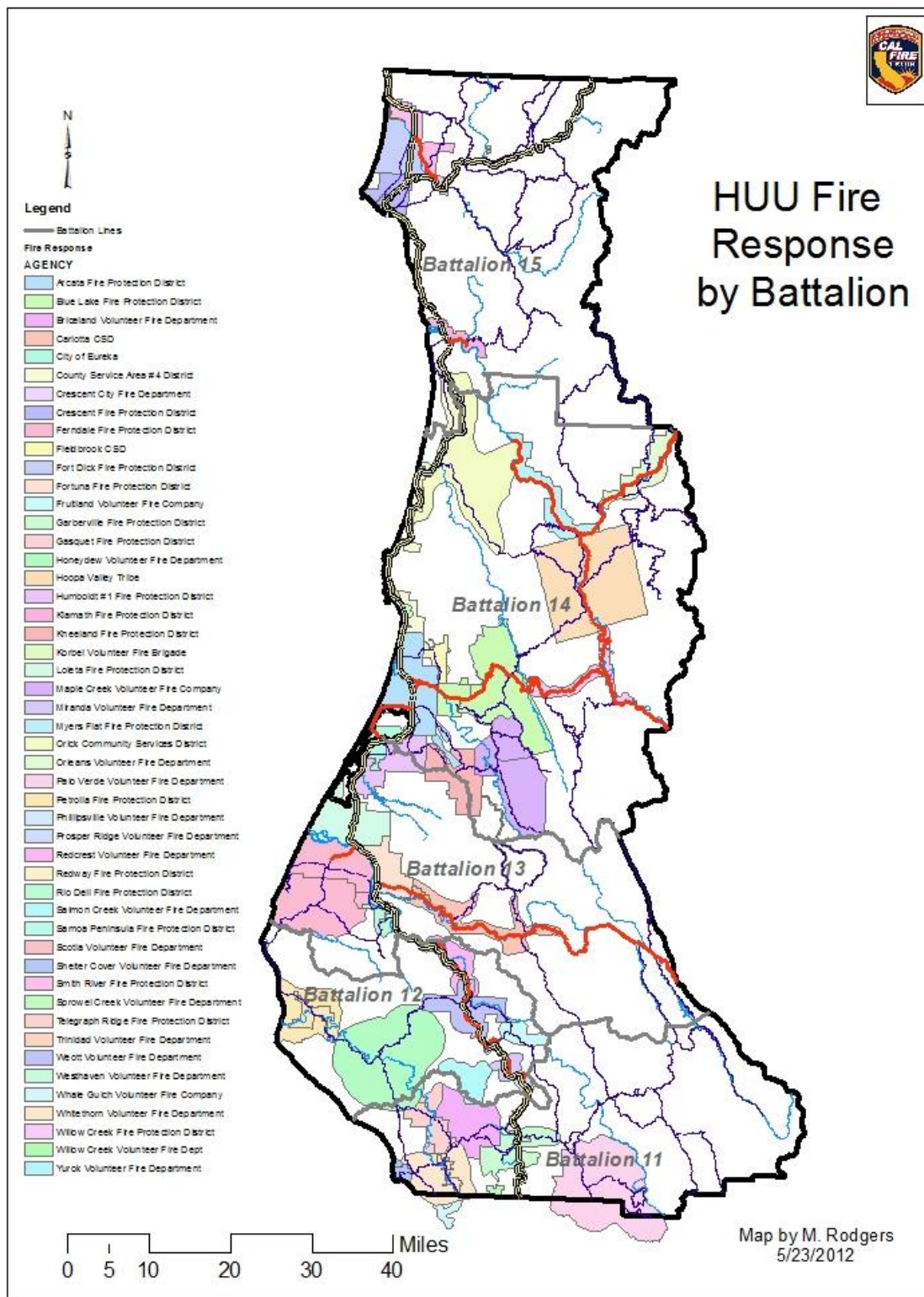
* The SRA and DPA data sets have minor differences in total acres for the HUU Unit.

DPA Breakdown:	CDF	Six Rivers NF
CDF:	1,783,223	133,162
BIA:	9,321	
BLM:	80,809	
Six Rivers NF:	<u>133,373</u>	<u>925,006</u>
	2,006,726	1,058,615

EXHIBITS: MAPS

Figure A: Unit Maps







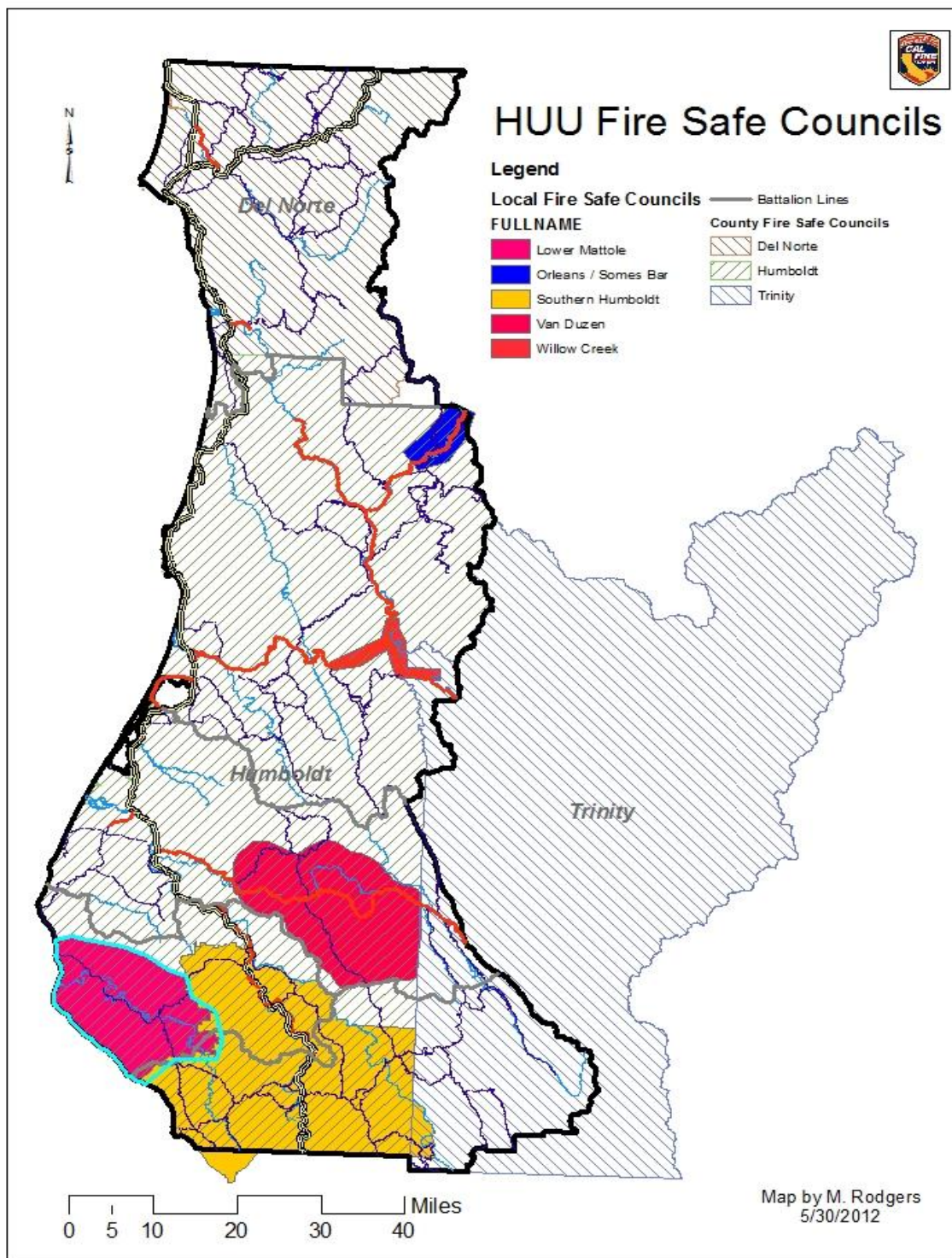
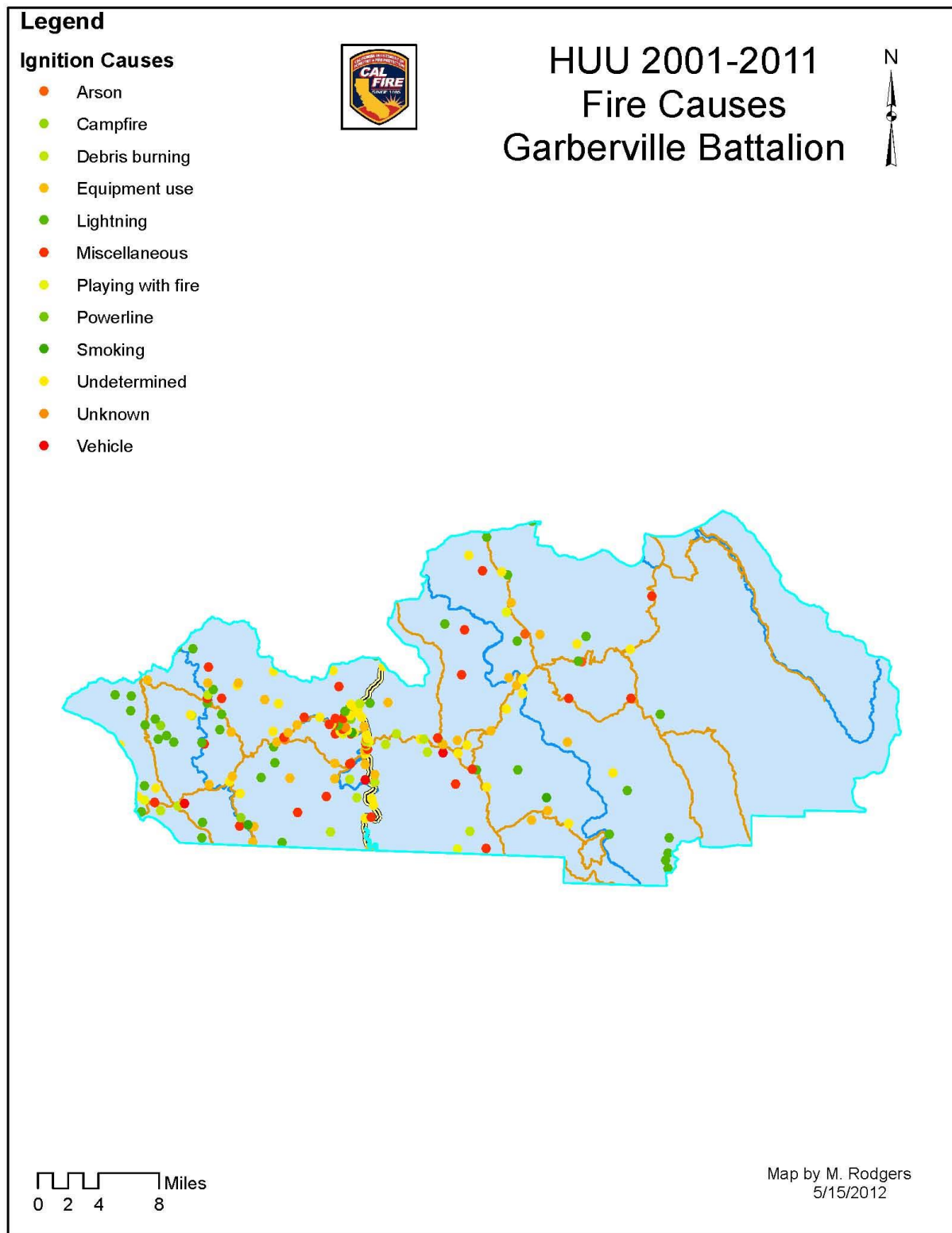


Figure B: Battalion Maps



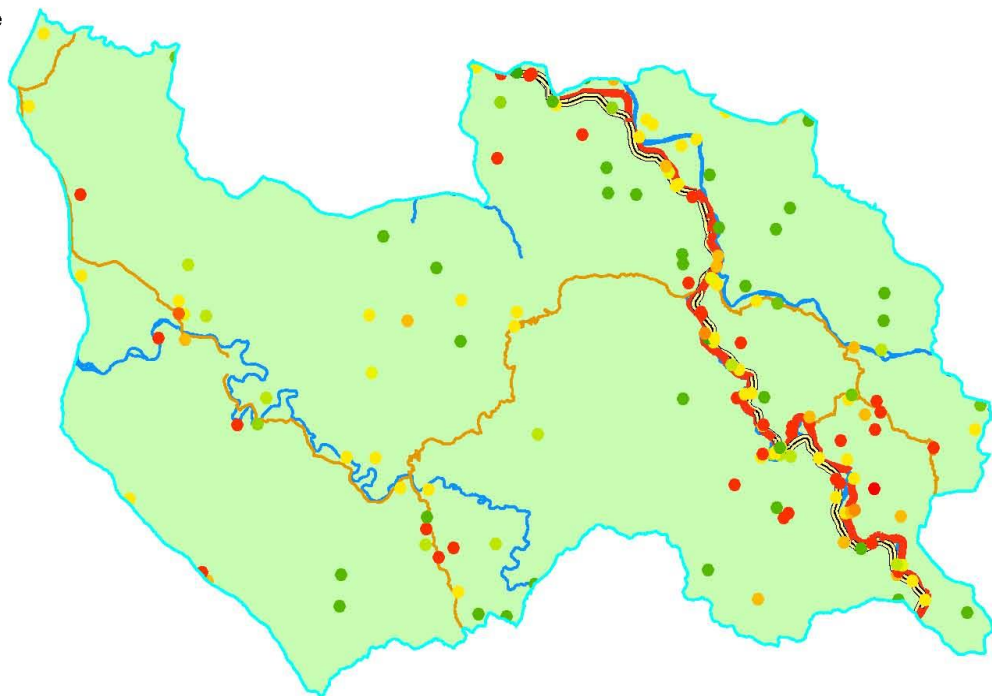
Legend

Ignition Causes

- Arson
- Campfire
- Debris burning
- Equipment use
- Lightning
- Miscellaneous
- Playing with fire
- Powerline
- Smoking
- Undetermined
- Unknown
- Vehicle



HUU 2001-2011 Fire Causes Weott Battalion



0 2 4 8 Miles

Map by M. Rodgers
5/15/2012

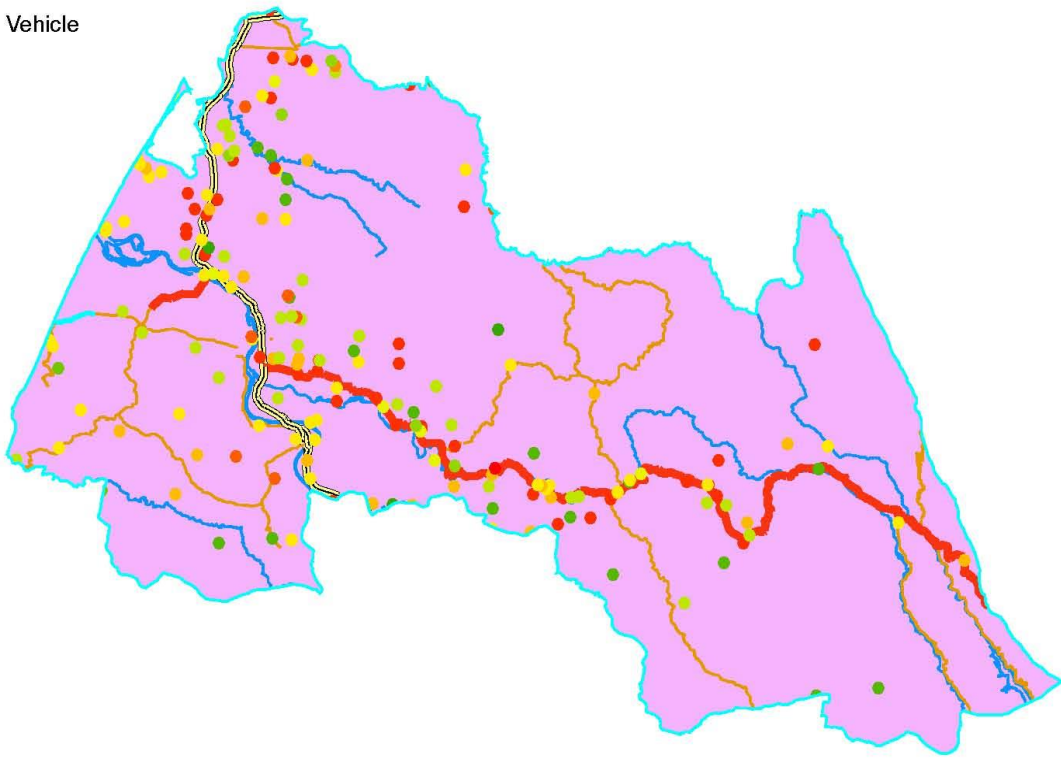
Legend

Ignition Causes

- Arson
- Campfire
- Debris burning
- Equipment use
- Lightning
- Miscellaneous
- Playing with fire
- Powerline
- Smoking
- Undetermined
- Unknown
- Vehicle



HUU 2001-2011 Fire Causes Fortuna Battalion



0 2 4 8 Miles

Map by M. Rodgers
5/15/2012

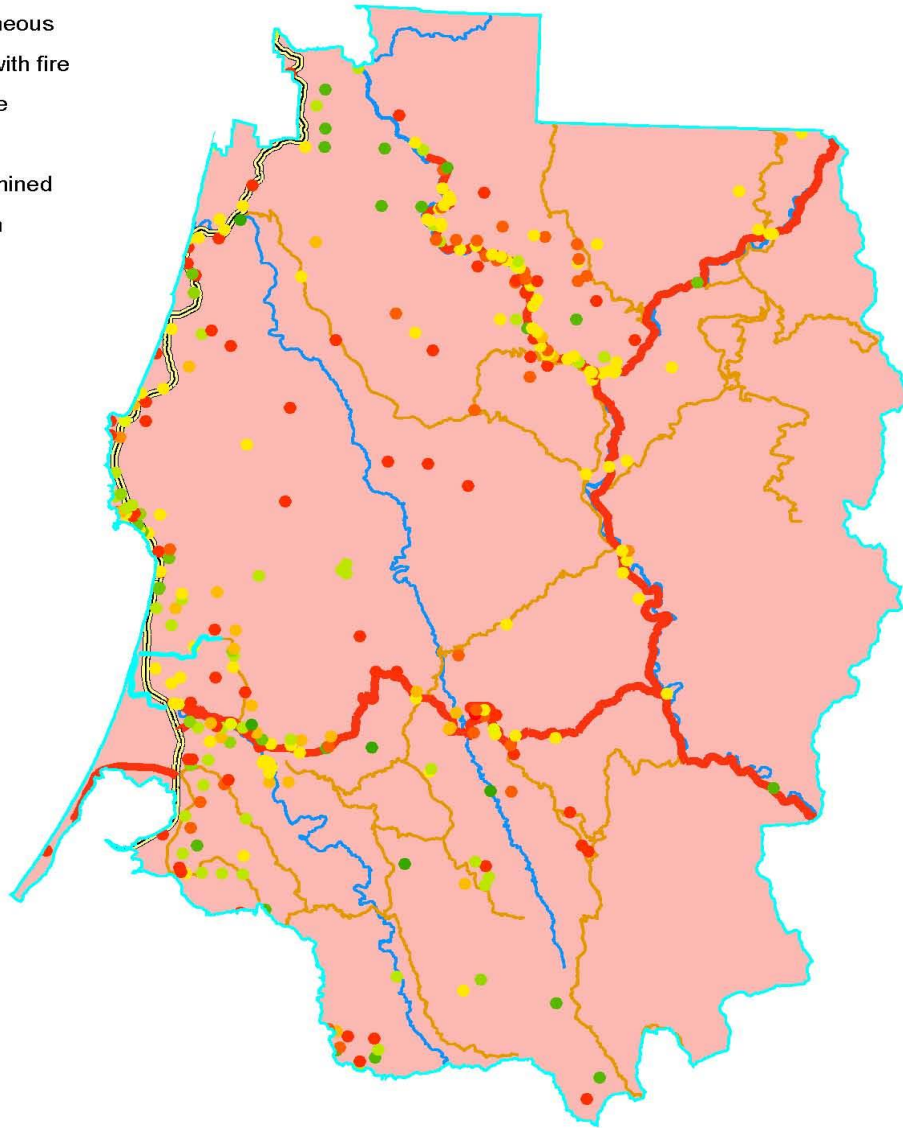
Legend

Ignition Causes

- Arson
- Campfire
- Debris burning
- Equipment use
- Lightning
- Miscellaneous
- Playing with fire
- Powerline
- Smoking
- Undetermined
- Unknown
- Vehicle



HUU 2001-2011 Fire Causes Trinidad Battalion



0 2 4 8 Miles

Map by M. Rodgers
5/15/2012

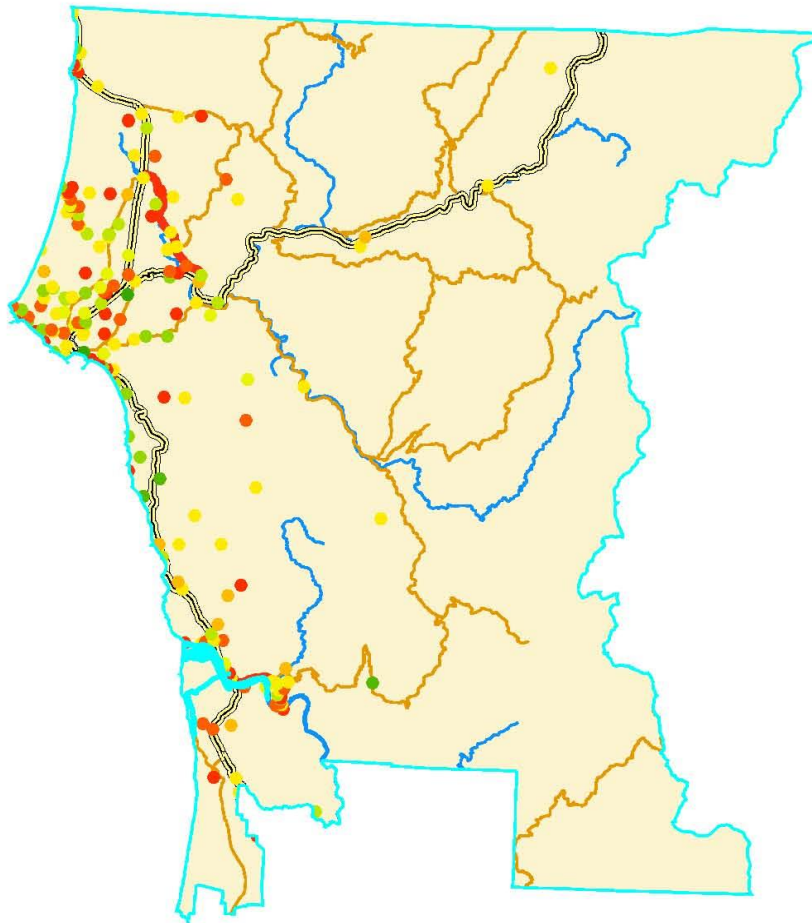
Legend

Ignition Causes

- Arson
- Campfire
- Debris burning
- Equipment use
- Lightning
- Miscellaneous
- Playing with fire
- Powerline
- Smoking
- Undetermined
- Unknown
- Vehicle



HUU 2001-2011 Fire Causes Crescent City Battalion



0 2 4 8 Miles

Map by M. Rodgers
5/15/2012

Annual Report of Unit Accomplishments

Humboldt Del Norte Unit accomplished many fuel reduction projects mostly through supporting Fire Safe Councils. In addition to this work the Unit in collaboration with Humboldt County Natural Resources Planning Division and local Fire Safe Councils and other collaborators secured grant funding for a multitude of projects including but not limited to: fuels reduction, public outreach and public education, National Firewise Community Certification, Presentations to the Humboldt County Board of Supervisors, County Wide CWPP public meetings for CWPP updates, developing local CWPPs for local Fire Safe Councils.

Lost Flat Ranch Fuel Break Project

Lost Flat Ranch Fuel Break Project grant was funded and “The proposal represents priorities identified and developed through a collaborative process between community representatives, local fire safe councils, and governmental cooperators. This project fits into the Humboldt-Del Norte Operational Unit’s “Fire Management Plan” for fuel reduction projects and public education programs. The project is an area identified in the Humboldt County Community Wildfire Protection Plan. The Fuel Breaks were identified and strategically located to protect the WUI areas of Deerfield Ranch subdivision and the community of Blocksburg. The community of Blocksburg is also identified as a Community at Risk in the Humboldt-Del Norte Unit Fire Plan. The project area is located in a WUI designated area. The project is ongoing and is expected to create fuel breaks on approximately 400 acres and deliver approximately 5300 bone dry tons of biomass to Eel River Power in Scotia.

Cathey Road Shaded Fuel Break

Creating a shaded fuel break along Cathey Road will provide safe ingress and egress for both residence and Emergency response personnel. The shaded fuel break will be developed by pruning, limbing and brushing roadside vegetation within fifty feet of the road edges. Branch and leaf materials created will be chipped on site, or burned at existing burn pile locations under permit. Large levels of fuel reduction work will result from the project in that flammable brush, low lying limbs and ladder fuels will be removed. Additionally, eliminating the wild land fuels within the shaded fuel break will also check the increase in dead wildland fuels within the Cathy Road community access.

The project area is made up of various brush species as well as Douglas-Fir, Redwood and Tan Oak trees. The area will be brushed and small trees will be removed to allow trees to be spaced at fourteen by fourteen foot spacing. Creating a shaded fuel break along Cathy Road will provide safe ingress and egress for both residence and Emergency response personnel. The shaded fuel break will be developed by pruning, limbing and brushing roadside vegetation within fifty feet of the road edges. Branch and

leaf materials created will be chipped on site, or burned at existing burn pile locations under permit. Large levels of fuel reduction work will result from the project in that flammable brush, low lying limbs and ladder fuels will be removed. Additionally, eliminating the wild land fuels within the shaded fuel break will also check the increase in dead wildland fuels within the Cathy Road community access. The resulting project area will result in a well-stocked stand of Douglas-fir, Redwood and Tan Oak trees with brush and ladder fuels and tree limbs removed.

Mattole Restoration Council
Lower Mattole Fire Safe Council
Prosper Ridge Shaded Fuel Break

The project I developed defensible space on private property within the wildland/urban interface on Prosper Ridge. The ridge top line of hazardous fuel reduction and prairie maintenance will connect to, and complete, a fuel reduction project on federal land proposed in the King Range Wilderness Management Plan that is currently under development by the BLM.

(Phase 1). This fuel break, which extends 30 feet on either side of the road in the forested areas, provided a critical emergency evacuation route for resident sand a strategic line of defense for firefighters. While this has greatly improved residents' safety on Prosper Ridge, the opportunity exists to expand the fire break into adjacent meadows which have been decreasing in size and quality for several decades. Although a few ridge landowners continue to graze and/or burn, others have allowed the natural seeding of shrubs and trees into the meadows.

The fires in the Kings range national Recreation Area (KRNCA) in 2003 and 2008 elicited additional landowner support. Those formerly not interested are now supportive of reclaiming open prairies for fire safety and to maintain prairie habitats. In the past, these landowners have feared fire projects, but now they fear wildfires. This project has the potential to kick-start local awareness of prairie maintenance and to bolster support for BLM fuel treatment and prairie reclamation projects

Douglas-fir and Coyote brush have been squeezing out historically-open meadows. Both species increase the severity of fire exponentially causing great risk to life and property.

The Project

Phase 2 of the Prosper Ridge Fuels Reduction Project will remove fuels where they have encroached upon historically open prairies. The project will help prevent wildfires from expanding into adjacent watersheds, and allow 'dozer lines, hand lines, wet lines, air tanker drops, or type 1 firing operation access. This will assure that wildfires originating on BLM land do not cross into the Mattole watershed.

The mission of the Lower Mattole Fire Safe Council (LMFSC) is to reduce risk and minimize wildfire damage to life, property, and the environment, by coordinating efforts to fund and implement fire-safe education and projects in the Mattole Valley. Organized in 2001, LMFSC published the Lower Mattole Fire Plan in 2002, which has served as a

Community Wildfire Prevention Plan for the area, recommending dozens of priority projects and fire safety upgrades/plans for landowners and road associations. Recent accomplishments of the Council include: shaded fuel break projects on Wilder Ridge, Panther Gap, Telegraph Ridge, and Prosper Ridge, Phase I; installing and plumbing (to a standpipe) nine 5400-gallon water tanks throughout the watershed dedicated for fire use; evaluating lands for fuel load reduction projects; engaging community members in fuels reduction techniques; distribution of educational materials to landowners; facilitating volunteer events; conducting public outreach; and coordination of Fire Safe Council meetings. The LMFSC does not have a Board of Directors but has 10 members who represent distinct neighborhoods in the lower Mattole watershed.

Sunny Brae Shaded Fuel Break

The project area is made up of various brush species as well as Douglas-Fir, Redwood and Tan Oak trees. The area will be brushed and small trees will be removed to allow trees to be spaced at fourteen by fourteen foot spacing. Creating a shaded fuel break along the Arcata Community Forest will provide a fuel break for both residence and Emergency response personnel. The shaded fuel break will be developed by pruning, limbing and brushing vegetation within fifty feet of the project boundary. Branch and leaf materials created will be lopped and scattered. Large levels of fuel reduction work will result from the project in that flammable brush, low lying limbs and ladder fuels will be removed. Additionally, eliminating the wild land fuels within the shaded fuel break will also check the increase in dead wildland fuels within the interface of the community forest and the Sunny Brae Community. The resulting project area will result in a well-stocked stand of Douglas-fir, Redwood and Tan Oak trees with brush and ladder fuels and tree limbs lopped and scattered. These treated fuels will provide an excellent fuel break within the project boundaries.

Removal of dead and dying vegetation will reduce the threat of wildland fires within the Sunny Brae community protecting the health of the forest. The significant decrease in ladder fuels, resulting from the created shaded fuel break, will also result in the ability to stop whole stand replacement fires from occurring. Additionally, removal of these ladder fuels will decrease the likelihood of running crown fire. The project will provide fire protection to the community forest which provides forest resource values including but not limited to watershed recreation and wildlife values. The community forest is also managed by the city of Arcata. The protection of the forest and the associated stocking levels will be better protected by the creation of Sunny brae fuel break. The provided the sustenance of forest health and future stocking levels of this important community forest at the forest landscape level. Forest health will vastly be improved by reducing the levels of wildland fuels.

Mattole Road Shaded Fuel Break

The project area is made up of various brush species as well as Douglas-Fir, Redwood and Tan Oak trees. Construct a shaded fuel break within fifty feet of both sides of Mattole Road. The project provides the Humboldt Redwood State Park fire protection for the largest continuous stand of Old Growth redwoods in the world. Hazardous fuel

loading will be greatly reduced. Emergency services access for fire control and emergency response will be improved. The project will include limbing, pruning and brushing the area. The resulting hazardous fuels will be treated by pruning and lopping and scattering. The project area is made up of various brush species as well as Douglas-Fir, Redwood and Tan Oak trees. The area will be brushed and small trees removed to allow trees to be spaced at fourteen by fourteen spacing. Remaining trees will be limbed to reduce ladder fuels. The removed brush trees and limbs will be treated on sight by lopping and scattering material to within eighteen inches of the ground. The resulting project area will result in a well-stocked stand of Douglas-fir, Redwood and Tan Oak trees with brush and ladder fuels and tree limbs removed.

Removal of dead and dying vegetation will reduce the threat of wildland fires within the Redwood State Park protecting the health of the forest. The 14X14 spacing of residual trees in the completed fuel break will be an improvement in the stocking and result in an improvement in forest health. The significant decrease in ladder fuels, resulting from the created shaded fuel break, will also result in the ability to stop whole stand replacement fires from occurring. Additionally, removal of these ladder fuels will decrease the likelihood of running crown fire. The project will provide the Humboldt Redwood State Park fire protection for the largest continuous stand of Old Growth redwoods in the world. Hazardous fuel loading will be greatly reduced. Emergency services access for fire control and emergency response will be improved. Forest health will vastly be improved by reducing the levels of wildland fuels.